

# Kay Everett Calls CQ

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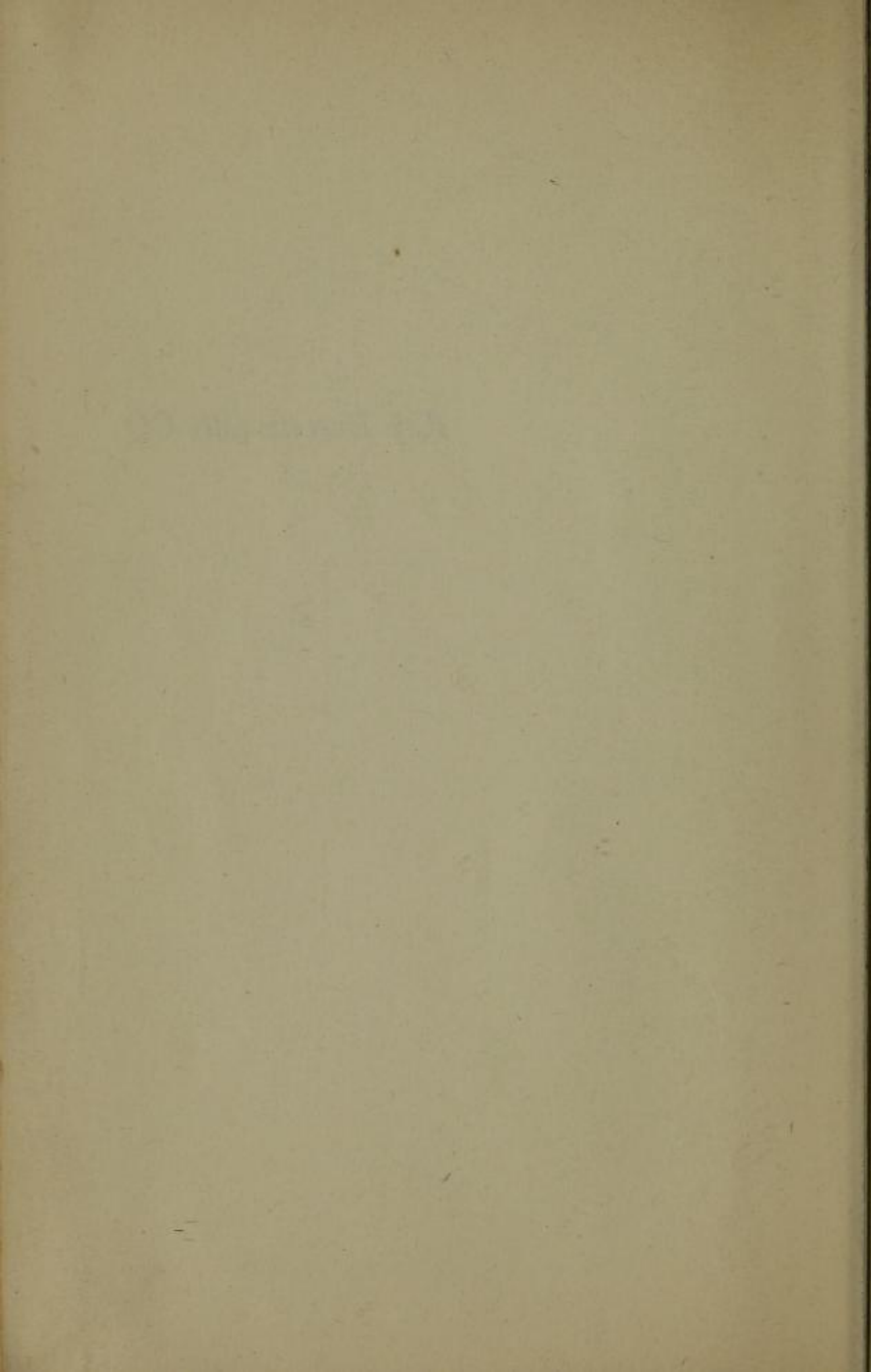








*Kay Everett calls CQ*











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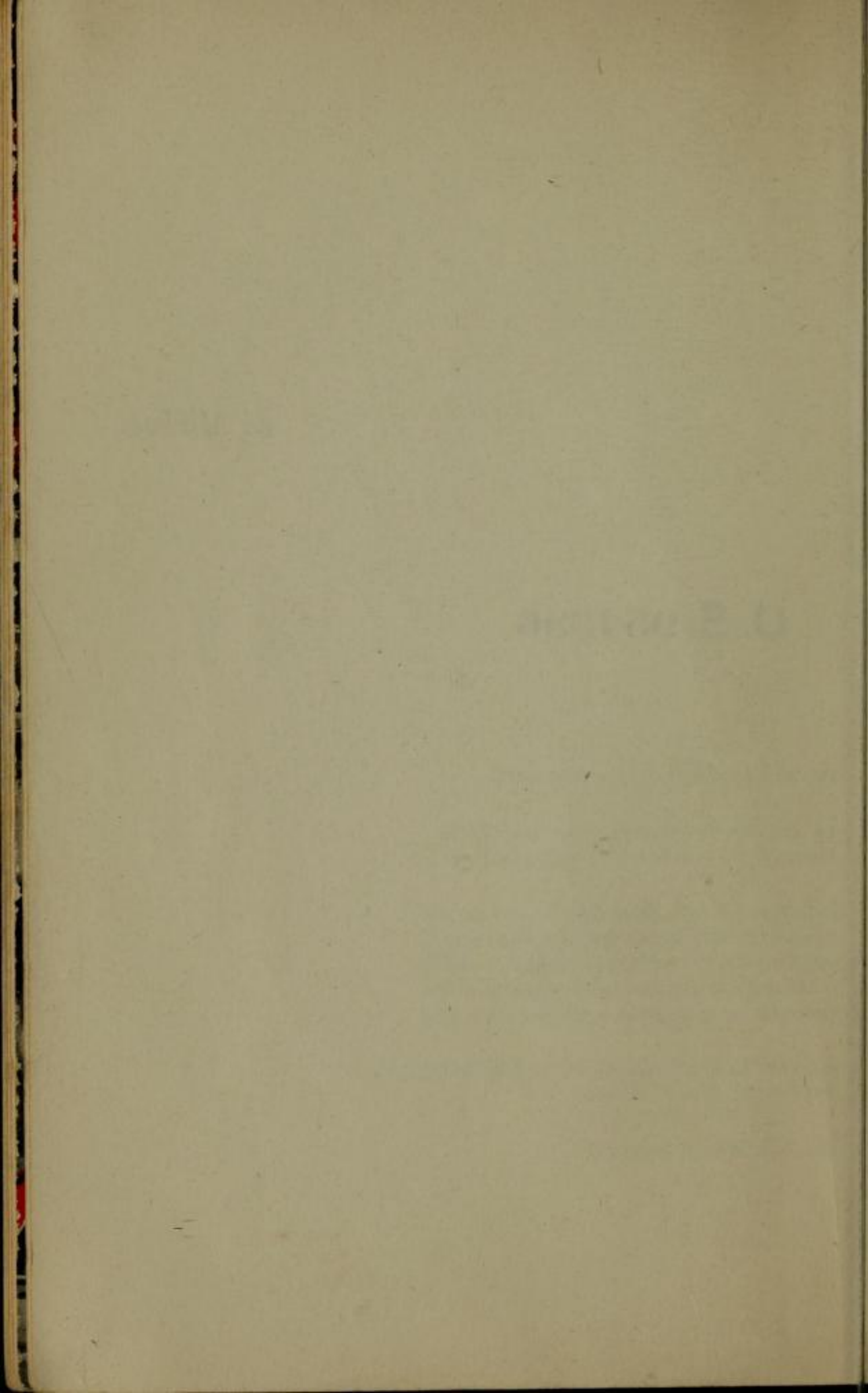
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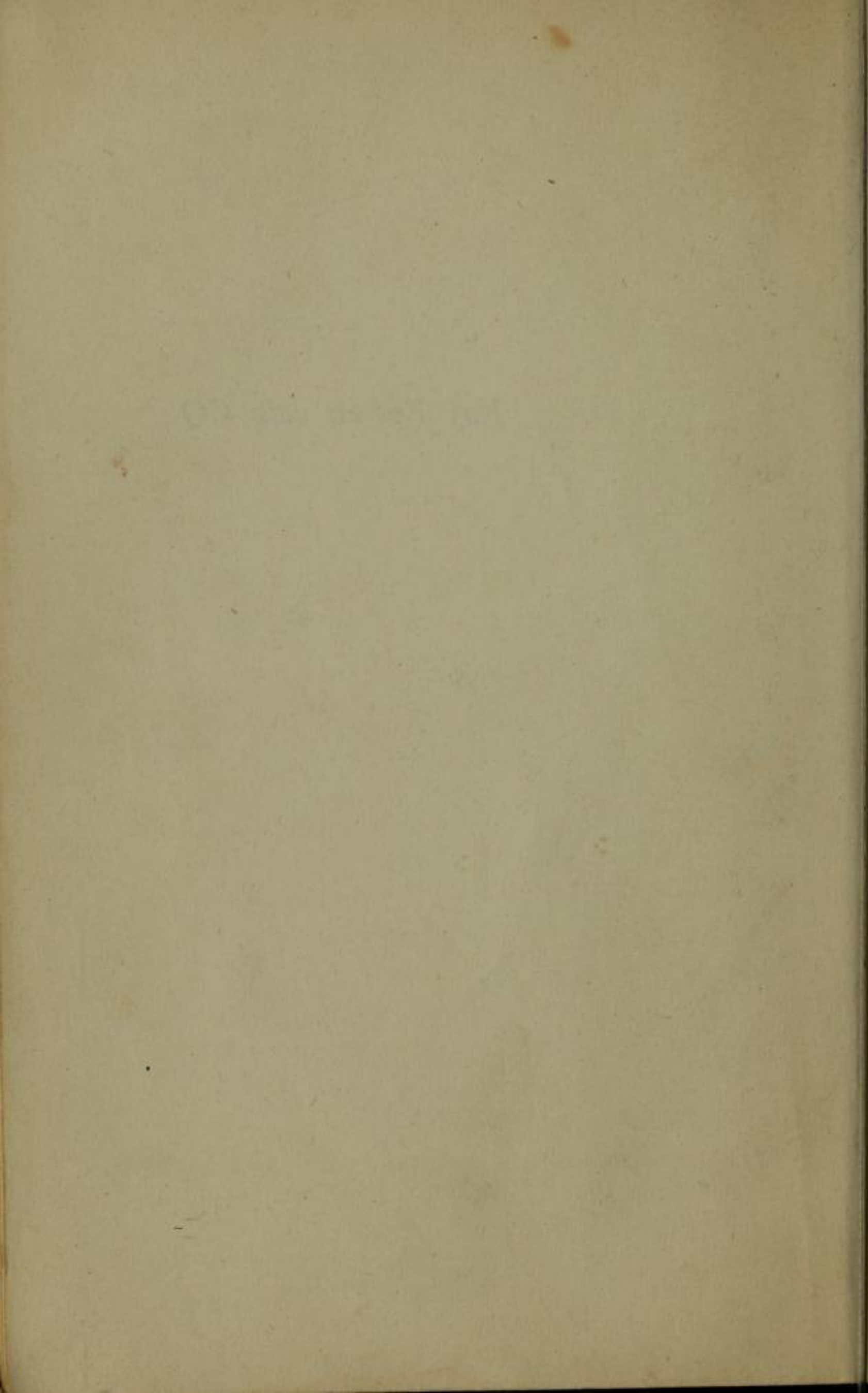
*to Michael*

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*Kay Everett calls CQ*



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— • — • — — • — *chapter one*

“What’s next, Jane?”

Kay Everett straightened up from the littered floor of the automobile trailer, arching her slim, wiry body to get the kinks out of her legs, as she waited for an answer to her question. There was a grimy smudge on the tip of her turned-up nose, and her dark brown hair was sadly out of place. She slapped a cloud of dust from her dungarees.

The gray carpeting she had just finished tacking



## KAY EVERETT CALLS CQ

looked grotesquely formal among the helter-skelter of tools, planks, hinges, dishes, paintbrushes, frying pans, and other odds and ends scattered about.

"Are you through with that already?" asked Jane Carlton. From the window where she was putting up curtain rods, the older girl surveyed the scene.

"Looks good, doesn't it?" she said, nodding at Kay with approval. "Diana's mother was sweet to give these curtains to us. By the time I get them up, this old trailer will look real homey."

"Except for the paint pots," laughed Kay.

"If you're through you can help me," said a plaintive voice from the corner. "I'll never be able to get this up by myself."

Diana Lane struggled to hold a heavy wooden shelf against the side of the trailer. Her short, stocky legs were somehow braced in a pile of books, magazines, and boxes of stationery—all waiting to be moved to their home on the shelf.

Kay grabbed a thick iron bracket, pushed it under one end of the board.

"If you can hold the other end steady, Diana, I'll screw this into place."

A few minutes later Diana had transferred all the items from the floor to the shelf. Each fitted snugly into its partitioned compartment. She gave the unit a few tentative thumps.



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"Firm as a rock," she decided. "Kay, your dad's cabinet factory is a handy thing to have around when you're fixing up a trailer."

Kay walked to the door of the trailer and peered out.

"I'm beginning to get worried about Flip."

"Oh, she'll be along," Diana said. "You know Flip. She probably got interested in something else on the way over."

"Maybe something happened to her."

"Doesn't it always?" Diana's smile belied her sarcasm. "I wonder what kind of an excuse she'll have this time."

The Sunday afternoon sun blazed down on Jane Carlton's back yard, and on the neat, white frame house where Jane lived with her widowed father. A trail of mops and brooms, screws and nails, scraps of cloth and chips of wood was strewn along the driveway. Such signs of physical activity were unusual on a spring Sunday in Stafford, North Carolina.

Six days a week the town, which sat astride a main highway in the western part of the state, was a bustling business center for the surrounding farmlands. But on Sunday the haze of heat rose from the deserted downtown section and spread slowly outward over the quiet, tree-lined residential streets until it was turned back by the drawn green shades



and the almost-closed shutters. Defeated, the heat then turned toward open country. It floated over Indian Creek, the narrow, silvery stream that ran through the near-by woods until it poured its beauty into the muddy Chatooga River; then the heat seemed to rise and turn into a haze that swam around the peaks of the Great Smoky Mountains, which poked into the sky off to the west.

But to the amazement of the occasional passer-by, this Sunday was no day of rest in the Carlton back yard. For in that yard, at the end of the driveway, sat the trailer.

If trailers can feel conceit, it surely was bursting with pride. Only a month ago it had been huddled in the rear of a used-car lot, a drab shell with a "For Sale" sign in its dirty window. Battered and road-stained, its chief attractions were a roomy interior, four bunk-type beds, and a collapsible table which was built into one wall.

Jane Carlton first saw it one day when she was walking home from Dr. Prentiss's office. The siege of asthma that had kept her out of college during the just-past spring term was ended, but it had left Jane thin and pale.

"If you could get away for the summer," the doctor had told her, "out West, perhaps, where it's warm and dry, it would do you worlds of good."



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"I'd love to," she'd said. "But I don't see how—"

Then she spotted the bedraggled trailer, and a daring idea leaped into her mind. Within one miraculous week the idea was on its way to becoming a reality.

For Kay Everett, Diana Lane, and Filippa Adams—three Stafford High School girls who had become special friends of Jane's—had gotten permission to go with her on a summer's trailer tour of the West. It had taken some tall talking to convince half a dozen parents, but Jane had handled that task as capably as she did most others.

During the past four weeks the trailer had been the center of four girls' thoughts and dreams, the recipient of every moment of their spare time. Now it sparkled proudly with a new coat of green paint on the outside and white inside. The windows, framed in dainty curtains, gleamed. The chromium trim was polished to a high gloss. Even the white-walls on the tires were immaculate.

Neatly lettered underneath the center window on each side was the word "Solus." It managed to baffle most observers.

"That," Diana was fond of explaining in her most erudite manner, "that was my idea. It means 'only one' in Latin. You see, it's our only trailer."

Inside the trailer, the bunk beds had new mat-



tresses and were covered with gay print spreads. The kitchen cabinets were filled with assorted spare dishes from four family cupboards. A large plywood wardrobe was nailed to the floor in one corner. And almost every available inch of wall space was covered with shelves divided to hold neatly the innumerable items that just had to be taken along.

Jane Carlton pushed the last pair of ruffled curtains onto the window rod. She gave them a few final touches, then relaxed her tall figure into a chintz rocking chair that no longer rocked but was firmly screwed down.

"There! It looks cozy now."

"It looks beautiful, just beautiful," exclaimed Kay. "You'd never recognize it for the same trailer."

Jane smiled wearily. Her attractive oval face, framed by a wealth of smoothly brushed black hair, was tired. "Well, I should hope not, after all the work we've put in on it."

*start* "It's been worth it, though. After all, it's going to be our home for the next two months. Just think of the four of us seeing the West together." Kay's words tumbled out. "Aren't you excited, Diana?"

For a moment the serious expression that Diana carefully cultivated dropped from her face. "Of course I am," she smiled. "I think it's awfully good of Jane to let us go along."



"Good, nothing!" Jane snorted. "You don't think I'd enjoy taking a trip by myself, do you? Besides, it wasn't planned wholly for you girls. Remember, it was Dr. Prentiss who said, 'Go West, young lady,' and Dad who arranged for Solus. So thank them, if you must thank someone."

Kay's eyes wandered over the trailer shelves. "I don't see your radio equipment, Jane. Aren't you going to take that along?"

"Yes, I am. But it's in the car."

"How can you get that big outfit into the car? It takes up about half your bedroom."

"Heavens, not that one. I have a small rig I can use right from the automobile."

"Rig?" repeated Diana. "That's a funny word."

"It's not the only one," Jane laughed. "There's a whole vocabulary you never heard of, Diana. I call it 'ham slanguage.' We hams—amateur short-wave radio operators, that is—have an entire little vocabulary of our own. 'Rig' is simply our word for a radio set. This trip will be a fine chance to meet hams all over the country, and—"

"Hello."

It was a tearful voice that interrupted. A fragile-looking girl scuffed slowly up the driveway, head down, the weight of the world on her thin shoulders.



KAY EVERETT CALLS CQ

"I'm sorry to be late, but I couldn't help it. I've got the most awful news."

The others clustered around her.

"What happened? Are you sick?"

"Has your allowance been cut?"

"Did you get into trouble again, Flip?"

Flip waved them all quiet. "It's more gruesome than anything you could guess," she sighed. Her wispy blond hair was flying in even more directions than usual, as if in sympathy with her emotions.

"I can't go on the trip with you."

"You can't go?" Kay's voice expressed the disbelief they all felt.

"That's right. Mother is afraid I'll fall down a mountain or something." Flip slouched against the side of the trailer and idly patted it with one wistful hand. "She says if I'm not safe at home, then what'll happen to me when I'm two thousand miles away?"

There was a moment of stunned silence. Diana was the first to recover. "What have you done now, Flip? Your mother didn't mind yesterday."

Flip's voice sank to a whisper. She stopped patting the trailer. "I just sort of slipped down the kitchen stairs, and then Mom started talking about mountains . . ."

"After all the trouble we had convincing your



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mother in the first place, you have to go and fall down the stairs!"

"Now, Diana," protested Kay, "Flip didn't do it on purpose. Look, Flip, suppose we all go over and talk to your mother. Maybe we can convince her that she'll get her daughter back in one piece next September."

"I don't think it'll do much good, but if you want to try—"

As the girls trooped down Greenwood Avenue four abreast, Kay kept insisting that Mrs. Adams would be no match for them. Actually, however, she was none too sure. Though she was only going on sixteen herself, Kay felt at that moment years older than Flip, who had just turned fifteen.

Flip was the girl everything always happened to. Sometimes it was her own fault, for Flip couldn't deny she was careless. But even when Flip took the most elaborate precautions, things still went wrong.

There was the time, for instance, when Flip had been invited to dinner by Mrs. Sanders, her English teacher. Determined not to be late, Flip turned the living-room clock an hour ahead. She kept her appointment on time—getting to Mrs. Sanders's five minutes early, instead of fifty-five minutes late. But Flip learned later that her parents, going by the same clock, had been all too prompt for their eve-



ning's engagement. So prompt, in fact, that they arrived while their hosts were still getting dressed.

Flip had a way, however, of laughing at her troubles, wiggling out of them, and of making the people about her laugh, too.

"Yes," Kay said to herself, "Flip's fun to have around. I'd hate to take the trip without her."

Yet as the quartet turned into the Adams's flagstone walk, Kay involuntarily hung back. She felt again the sudden dampness on the palms of her hands, the sudden weakness in her knees. For a moment, as the shyness she always wrestled with flooded over her, Kay was appalled at the idea of marching into Flip's home and arguing with her parents. Then Flip turned around.

"Aren't you coming, Kay?"

The sight of the woebegone face made Kay forget her own trouble. She realized with a new understanding what the trip meant to Flip; indeed, to all of them. Kay forced herself to walk up the stone steps and ring the bell. Mrs. Adams answered the door.

"Hello, girls. I half expected you'd come by."

When they were settled in the living room, Jane began the attack.

"Flip told us she couldn't go on the trip, Mrs. Adams. We were hoping we could change your



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mind. It means a lot to all of us to have her along."

"I'm just afraid to let her go. It's not the trip I object to, and, goodness knows, I trust all of you. But you know how Filippa is. You all remember how she slipped out of the bedroom window waving hello to you one day." Mrs. Adams sighed. "She's already managed to find a clump of poison ivy this summer, though nobody else in Stafford has been touched by it. Only last week she spilled hot soup over her lap. And today she fell downstairs.

"None of the accidents were serious, I know. But each one might have been. Filippa just doesn't think before she acts. There's no telling what might happen to her out West."

"But I promised to be careful, Mother, and—"

"I know, dear. But somehow you always seem to forget."

"But the trip will be so educational, Mrs. Adams," Diana put in. "We'll have a wonderful opportunity to see the places and things we've studied about."

tant "More than that," added Jane, "the girls will have a chance to meet new people, to gain poise and self-confidence."

"I know that's all true, but poise won't help a broken leg or a fractured skull. I'm afraid I can't let Filippa out of my sight for a whole summer. I'm



sorry, but I do hope you three will have a pleasant vacation."

For a moment the girls were silent, exchanging quick glances among themselves. Kay suddenly knew what they all were thinking.

"It won't be three of us," she burst out, surprised at her own boldness. "Because I'm not going either. We can't traipse off and leave Flip alone here."

"Neither will I," said Diana. "It just wouldn't be right."

"In that case," said Jane, abruptly standing, "the trip's off. I'm not going alone, not after all the plans we've made together."

Loud applause came from the kitchen. Flip's father lounged in the doorway.

"Bravo! Young ladies, my compliments!" He turned to his wife. "There, my dear, is the spirit of unconquered and unconquerable youth."

He made a courtly bow to the girls, and Kay giggled under her breath.

"I am glad to know," Mr. Adams continued in a melodramatic voice, "that my daughter has such loyal friends. I'm sure I can't imagine what she did to deserve them."

"Henry." Mrs. Adams, embarrassed, rebuked her husband with a smile. "I'm not so mean as you make me out to be. It's just that—"



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"I know," he said, "you worry about Flip. It's time you stopped. Flip will never be able to take care of herself if you don't stop hovering over her. Let her go. Chances are she'll learn to handle herself. Anyway, from the catalog of accidents I heard you recite, if Flip keeps on living here she'll be an invalid by the time summer's over."

"You really think we should let her go, Henry? Seriously?"

Mr. Adams dropped the bantering tone he had been using. "I do. Best thing for her. I'm sure Miss Carlton is a capable and thoughtful person. After all, you know how competently she's managed her home and helped her father. I say let the girls have a fine trip."

Mrs. Adams turned back to Kay. "You really would give up your vacation for Filippa?"

"Yes, I would."

The others nodded agreement.

"Well, it isn't that I'm an ogre, really, but could you keep Filippa out of trouble?"

Kay looked at Jane as if to say, "She's weakening." The girls crowded around Mrs. Adams hopefully.

"We'll watch her; we won't ever leave her alone," Diana promised.

"I'll hold her hand on every mountain," said Kay.



KAY EVERETT CALLS CQ

"We won't do anything foolish, Mrs. Adams," Jane reassured her. "Flip will be as safe as she'd be right here in Stafford."

Mr. Adams let out a guffaw. "Better not put it that way or you'll never change my wife's mind."

"Well, I don't want to spoil all of your summers. And—" Mrs. Adams smiled at her husband—"I'd never hear the end of it if I didn't agree."

"Then it's all right?" Kay squealed.

"Filippa can go."

"Zumpie!" Flip cried.

There was a minute of shrill glee, then Flip dodged out of the group and flew up the stairs.

"Hey," she yelled, "I haven't finished packing yet. Who'll lend a hand?"

Kay and Diana piled after Flip to her room, while Jane stayed downstairs to talk over the trip with the Adamses. A half-filled suitcase lay on Flip's bed. A blue sweater drooped over one side, red-and-white polka-dot pajamas swirled over the other. Socks were scrambled on the desk in the corner. A tennis racket poked out from under the pillow, and packs of film were scattered on the night table.

Diana stopped short. "It looks as if you had six elephants helping you make this mess!"

The joke was poor, but after the worry of the last



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half-hour the girls were ready to laugh at anything and howled until they were crying.

Flip opened a bureau drawer, took something out, and held it behind her back. She adopted as mysterious a look as she could.

"All right, what's the secret?" asked Kay.

"Promise to keep it?" asked Flip. "Both of you?"

"Sure," they chorused.

"I'm serious," said Flip. "A real promise. Not even Jane can know."

The girls nodded. Flip opened her hand. In it was a silver bracelet of many links. On each link was the carved figure of a dancing girl in Colonial dress. Flip put the bracelet on her wrist, and as she moved her arm the links flowed delicately together, and then apart, and the carved figures seemed to glide in a flashing minuet.

"It's beautiful!" breathed Kay.

"Where'd you get it?" Diana asked.

"An heirloom," Flip explained. "It's been in the family for generations, Mother says. She and Dad gave it to me last week, for a birthday present."

"Well, what's the secret about then?" said Diana.

"I'm going to take it on the trip, to wear when we dress up."

Kay had a momentary vision of Flip swimming in



a mountain stream with the valuable bracelet on her wrist or climbing a mountain trail while it caught in tree branches.

"You'll surely lose it, Flip," she said. "Your folks would never forgive you—or us. You'd better leave it home."

But Flip shook her head. "I'm taking it. And you both promised to keep it a secret."

Kay started to protest again when footsteps sounded on the stairs. Jane and Mrs. Adams were coming up. Flip grabbed at the bracelet, tore it from her wrist, and plunged it deep into the mass of clothes that filled the bottom of one suitcase. She turned to Kay and Diana and put her finger across her lips meaningfully.

There was a strained silence as Mrs. Adams opened the door.

"Something wrong?" she asked.

"Not a thing," said Flip. Suddenly, to cover her confusion, she grabbed up a dazzling pair of red-and-blue plaid slacks. "These should be a comfort to you, Mom."

"Why, dear?"

"Because the girls can *never* lose me while I'm wearing these."

And the secret was temporarily forgotten in a new burst of laughter.



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U.S. Highway 30 cocked a surprised eye at the scene of domestic activity going on inside the green trailer which skimmed along above it. Though it was still a few minutes before eight in the morning, the pile of breakfast dishes floating in the sink rapidly decreased as the three girls—Jane was up front driving—washed and wiped with an efficiency born of an eagerness to get chores done and to return to sight-seeing.



As she put the last cup away in the cabinet, Kay watched Diana cross the trailer and add a length to the red crayoned line which angled and curved half-way across a giant map of the United States tacked to one wall. The line meandered from North Carolina through Virginia and Kentucky, cut just a tip off Indiana, and pierced Illinois and Missouri. There it stopped its northward slant and straightened out for the direct plunge to the West that began in Nebraska.

Along with tour books and lists of points of interest, the map was Diana's baby; but Kay and Flip, as well as Jane, enjoyed watching their trip take form and grow upon it.

Only a week ago the first tiny line had sprouted. The West then had seemed unapproachably far away. Kay had read the names of the cities of the Great Plains—Ottumwa, Grand Island, North Platte—and, farther west, the magical Indian names of Cheyenne, Shoshone, Winnemucca.

And the little pink rectangles and the red dots which speckled the map, marking the great scenic wonders, how distantly unattainable they had seemed! Yellowstone Park, the Rocky Mountains, Craters of the Moon, Indian Cliff Dwellings. All the romance that lies sleeping on the surface of a road map flared up in her imaginings.



Now Kay knew a few of the answers. People in Kentucky really did eat roast 'possum and raccoon. The wheat fields did lie like a golden carpet to the horizon under the midwestern sun. Giant bulls with wicked horns did lead their herds across national highways, leisurely holding up speeding cars with the nonchalance of a traffic policeman. She had heard, too, the squeals of spotted piglets, the hungry bleatings of baby lambs, the soft neighing of trembly-legged colts gamboling in the rich green fields.

The flat map with its red line, thought Kay—how much the names and the line mean already.

"Do you know what it looks like by now?" Flip's voice broke into Kay's reverie. "You've been staring long enough to memorize every detour."

Kay laughed and untied her apron. She looked out the trailer window. Widely separated farm-houses began to give way to small clumps of stores and homes. Fields yielded to pavement.

"New town coming up," she reported.

The neat white sign at the city limits flashed by:

"Ogallala, Nebraska. Population 3,159. Speed—25 miles."

Ogallala, Nebraska. Kay rolled the words on her mind's tongue and marveled that she should be seeing a girl playing with a puppy on the front lawn of



## KAY EVERETT CALLS CQ

a small house in this faraway town with the tongue-twisting name.

The girl was about her own age. If she lived in Stafford, Kay thought, she'd be in high school with me. We might even be good friends. Stirred by an impulse deep within her—a sort of wonderment and joy that in distant, unknown Ogallala, and in all the other distant and unknown cities of the world there were girls much like herself—stirred by this, Kay waved her hand. The girl smiled and waved back. The little dog barked, ran a few steps, then stood frantically wagging its tail.

On the other side of the city limits, Jane stopped the car, and the girls moved up front into it. Again the landscape rolled by, and a fresh, earthy odor rode the breeze.

But gradually the country changed. The road sloped upward, and the gentle land grew harder. The tree-shaded farms with their red barns and wind-driven pumps appeared less often. Even the houses the girls saw now were different: long and low-slung, they stood aloof on bare knobs of land. Their roofs were sharply angled, like a very narrow, upside-down V, so that the tremendously heavy winter snows would not pile up and crush them but rather slide harmlessly to the ground.

Every few miles the girls passed a grazing herd of



sleek cattle or horned bulls standing menacingly at the side of the highway. Once Jane had to steer between two of the huge beasts, either of whose sheer bulk would be capable of crushing the metal of the car body.

By midafternoon Solus was well into Wyoming. The history-laden cities of Cheyenne and Laramie were behind, and ahead stretched a plateau swept by wind and baked by sun. Peaked cliffs and flat-topped mesas jutted abruptly from the rocky land. In the distance loomed great shadows, too substantial to be clouds, that were promises of mountain ranges to come.

From horizon to horizon the rolling land was dotted with patches of scrubby green sagebrush. Here and there a queer crooked tree fought for life-giving water, sharp bluejays darted across the windshield, and gloomy buzzards circled high in the blue.

It seemed to Kay as if she were riding on some unknown stretch of the world. In one moment, she thought, just around the next curve or over the crest of the next hill, she would be at the edge of this table in the sky, looking down at nothingness.

Jane's voice broke the illusion. "I wonder what that can be," she said, peering through the windshield at a dark blotch on the road ahead.



"Might be a dust storm," Diana volunteered. "Remember the folks in the trailer camp last night told us how they got caught in one?"

The blotch became a moving cloud, black in the center and with dusty brown edges which billowed and swayed. Jane slowed the car, then slowed to a stop on the wide shoulder of the roadway.

"I don't think it's a dust storm," she said. "Hardly enough wind for that. But let's roll up the windows and sit tight till it passes, whatever it is."

The sun beat down on the roof of the closed car. The four girls sat quietly alert in a vacuum of heat and silence. Then, as if from a great distance, a noise reached their ears. It was like dozens of babies whimpering, punctuated now and then by a louder wail. It was a plaintive, frightening sound. Kay wiggled as an unasked shiver slid down her spine.

The cloud began to take form; indistinct shapes loomed in the haze, faded, then appeared again. Now there were hundreds of black shapes floating along together in a cloud of dust. Suddenly Kay broke the stillness inside the car with a whoop:

"It's sheep! Thousands of sheep!"

"Zumpie!" Flip shouted once, then stared open-mouthed.

In another ten seconds the car and trailer were



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surrounded by big, woolly sheep with long, drooping beards; and by tiny gray lambs that bleated mournfully as they scurried after their trotting mothers. And drowning out everything was the "baa, baa" of the sheep.

Jane rolled the car windows down. Dust swirled into the sedan, and with it the overpowering smell of sheep. But the girls were heedless of both. From their ringside seats they stared, fascinated.

Mostly the animals stayed on the edge of the highway, but several wandered off either into the fields or onto the center of the pavement. One of the sheep herders who harried the flanks of the flock rode after the strays. But more often a large, tail-wagging colie would chase the adventurer, bark reproachfully, and gently nose him back into the main body of the group. The bawling and the barking and the shouting grew louder, and the acrid odor was suffocatingly strong.

"Can you imagine," Kay asked of no one in particular, "driving sheep right down a U.S. highway? You'd think they'd get run over."

"Run over?" echoed Jane. "You couldn't drive a car six inches through that mass of animals."

One of the herders swung close to the car to prod a straying ewe and her lamb.



## KAY EVERETT CALLS CQ

"Where are you taking all these sheep?" Flip called to him.

The horseman smiled. "Up to the mountains for summer pasture, ma'am."

"Did you get that?" Flip turned to the girls. "Even the sheep go away for the summer."

"Those lambs are just too cute for words," said Jane.

"They certainly are," squealed Flip. "We ought to have a picture of them."

Before anyone realized what she had in mind, Flip grabbed her camera, opened the car door—letting in a cloud of choking dust as she did so—and ran out into the center of the herd.

"Flip! Flip! Come back here! You'll be trampled!"

But Flip already was yards from the car. No words could reach her over the tumult of the sheep noises. In another moment only her blond hair distinguished her from the gray mass that pressed around her from all sides. Kay saw her bend down, camera poised to get a focus on the scene. Then she was swallowed up, completely lost to view.

Jane flung herself out of the car and started to fight her way toward the spot where Flip was last seen, but she could make little headway against the



crush of sheep. Kay thought quickly. Jane could never reach Flip. But the herder—he could help. If she could just get his attention over all the baa-ing. . . .

Kay slid over into the driver's seat and beat the palm of her hand on the inner ring of the steering wheel. Loud honks blatted from the horn, scattering the startled sheep around the fenders. A few more honks and the lead herder swung his horse back toward the car. At Diana's frantic waving he spurred the animal.

"It's our friends—two of 'em are out there in the middle of your sheep," Diana shouted. She pointed to the spot where Flip had disappeared and where Jane, taller, still could be seen struggling.

The man wasted no time. Wheeling his horse, he carved a path through the protesting sheep. Annoyed sheep scrambled aside to let him through. A few stubbornly stood their ground, but the rangy chestnut mount twisted to the right and left, cutting a passageway.

Kay and Diana saw the herder peer intently, swing to his right, lean down from the saddle, swoop up Flip, and rein his horse around—all in the same smooth motion. Then he fought his way to Jane and opened a path for both of them to the highway.



"I see Flip still has that precious camera of hers," Diana commented, disguising her relief in her usual sarcasm. "She can't have been hurt any."

"She looks all right," agreed Kay, "but so *dirty*."

"Hi!" Flip was sitting in front of the sheep herder, hanging to the horn of his saddle. She waved gaily with one hand. "Hi! I got some swell close-ups. Thanks for sending someone to rescue me, but I was just getting to know the sheep."

"Whew! Smells like you got to know them too well," said Diana. "If your mother could see the condition of those new slacks—"

"The slacks!" Jane cried. "If Mrs. Adams could see her Filippa now, after we promised to keep her out of trouble, I'd feel pretty sheepish myself."

Flip, now on the ground beside the car, thanked her rescuer.

"We're terribly grateful," added Jane. "There's no telling what might have happened without your help. And I'm sorry we caused you all this trouble."

"Shucks, ma'am, no trouble at all." The man swung his wide-brimmed hat off and grinned. "It was fun for me. Lots more fun than just foolin' with sheep all day."

"What a compliment!" said Jane as he rode away. She turned to Flip. "You and your close-ups! You gave me a real scare. You ought to—"



Jane stopped in mid-sentence. She stared. Her nose wrinkled. Her face worked in an effort to retain its sternness. Then she burst into laughter.

"How can I bawl you out when you look like that?"

Flip put her hands to her head.

"My hair!" She yelped. "Zumpie!" She put her face up against the car window to see her reflection. "Oh, my gosh, after the trouble I had setting it last night." Sadly she combed her fingers through the flying strands.

"After all that," said Diana, "you worry about your hair."

"If you had my hair you'd worry about it too."

"All right," said Jane, "let's feel a little less sorry for ourselves. You know you shouldn't have done that, Flip, and just because nothing happened to you is no reason to forget about it. You could have been badly hurt. I want you to promise you won't do anything rash again."

"I'm sorry, Jane." Suddenly, as she realized the real danger she had been in, and the risk Jane had taken for her, Flip was truly contrite. "I promise," she said.

"Now, for goodness' sake, get in the trailer and wash that aroma off."



KAY EVERETT CALLS CQ

Kay wrinkled her nose. "Jane," she said slowly, "I think you'd better—"

Jane glanced down at her sheep-disheveled clothes. "Heavens! Me, too!" And ran for the trailer door.

Half an hour later Jane returned to the car followed by a chastened—and considerably cleaner—Flip. The car and trailer started off again down the highway. Jane glanced at the dashboard clock.

"Five o'clock!" she gasped. "How did it ever get so late?"

"Those sheep took up a lot of time," said Diana.

"How many miles before the next big town?" asked Jane.

Diana measured the distances on her road map. "Around eighty. That will be Rawlins, Wyoming."

"Only about two hours' driving," said Flip. "What's all the worrying for?"

"I'm just hoping there'll be some space left in a trailer park. They fill up early in the summer, you know."

"And especially in Wyoming," put in Diana, "where the towns are so far apart."

"Too bad we don't have a reservation," said Kay.

"Just the thing!" Jane exclaimed. "A reservation! Let's make one."

"From here?" squeaked Flip, waving her hands at



the bleak countryside. "Don't tell me there's a phone in the car."

"No, not a phone," laughed Jane. "But something just as good."

Kay broke the puzzled silence that followed. "Your radio?"

"Right!"

Jane turned on the car radio and pulled forward a steel extension arm that was clamped to one of the sun visors. On the end of the metal rod was a small microphone. She adjusted it so that it hung directly in front of her mouth. It was an unusual arrangement, but it left her hands free for driving. A hum came from the radio as it warmed up.

Jane Carlton was a "ham," a government-licensed operator of her own amateur short-wave radio station. Like thousands of other girls in America and all over the world, she enjoyed the thrill and adventure of talking by radio waves to persons thousands of miles away—or maybe just across the street.

"How far away can you talk to people on that?" asked Flip.

"It looks like any ordinary radio," said Diana, mystified.

Kay joined the clamor. "I recognize the microphone, but what's it connected to?"

"Whoa! One at a time, and I'll try to explain what



## KAY EVERETT CALLS CQ

this is all about. You know that an amateur station is really two separate things. One part of it is a receiver that picks up voices or code signals from the air. The other is called a transmitter, which sends out your own messages. Put them both together and you have a ham station."

"Or 'rig,' " said Kay, remembering Jane's explanation of that word.

"Exactly," said Jane. "The whole thing differs from regular radio broadcasting transmitters and receivers mainly in that it uses radio waves of shorter lengths to carry its messages. Now, you all know that I have a lot of heavy equipment at home. But hams are so interested in their hobby that they invented a way of talking by short wave while they're traveling in an automobile, or even in an airplane."

"How does it work?" asked Flip.

Jane laughed. "There have been a lot of fat books written to explain how ham radio works. I can't just tell you in a sentence. But the nub of it is this: my car radio is able to pick up short-wave as well as regular broadcasts, thanks to a gadget called a converter. I have a switch that changes reception from one wave length to another. And this microphone is wired to a battery-powered transmitter in the trunk of the car which sends out my words, or



'signals,' as hams call them. The tall aerial on the rear bumper serves both to send out my signals and to pick up incoming ones."

"It must be awfully hard to learn to be a ham," said Kay.

"It isn't, really," Jane answered. "I knew the basic facts well enough in about two months to get my license. And there are lots of teen-age girl hams. Some are as young as eight or ten years old."

"You mean even I could become a ham?"

"Of course, Kay. Anyone can. There's no age limit, no special requirements. You don't have to have anything but a real desire."

Static-like noises squawked from the radio, and Jane tuned the dial. She fumbled under the dashboard, flicked a switch, and began to talk briskly into the microphone.

"Hello CQ. Calling CQ Rawlins, Wyoming. Calling CQ Rawlins, Wyoming. Calling any amateur in Rawlins, Wyoming. This is W<sub>4</sub>HZP, mobile 7, calling CQ Rawlins."

While Jane repeated this mystical formula three times, the girls whispered excitedly among themselves.

"Do you understand any of that?" Flip asked Kay.

"Well, I don't really understand it, but I can figure out that Jane's trying to get in touch with some



## KAY EVERETT CALLS CQ

ham in Rawlins. I know that 'CQ' means 'won't anyone listening answer my call!'"

"Then it means just what it sounds like," Flip observed. "CQ—seek you."

"I don't see why she has to go through all that mumbo-jumbo," said Diana from the back seat. Studious but stubborn, Diana cherished her prejudices. One of them was that all hobbies are a waste of time.

Kay turned. "I guess there are rules for ham radio just as for everything else, and you have to follow them."

"Well," answered Diana, "I think it's pretty silly."

"I think it's fascinating," said Kay. "I'd like to learn more about it."

"—and this is W<sub>4</sub>HZP signing over. Come in, please."

Jane flicked the switch again and began turning the radio dial. "Now we'll find out if any ham in Rawlins heard me," she explained. Nothing but noise came from the radio for a moment. Then there was a voice:

"The weather out here is pretty nice these days, Sam. More sun than we've had in Denver for—"

Jane turned the dial again. "That was somebody else's conversation."

"Let's listen," Flip suggested.



"No time to eavesdrop," said Jane. "Have to—"

She was interrupted by a louder voice, a man's voice. **U. S. 954386**

"—W<sub>4</sub>HZP. Got your call, W<sub>4</sub>HZP. Hope you can hear me."

The voice snapped out its own call letters and said, "Over to you." Then there was silence. Again Jane flipped the switch.

"This is W<sub>4</sub>HZP. We can hear you fine. Thanks for your answer. I'm Jane Carlton from North Carolina. Three of my friends and I are headed for Rawlins, but we got involved with a flock of sheep a while back and lost a lot of time.

"I'm afraid there may not be any place left for us to stay by the time we reach town, and I hoped I could get a fellow-ham to do me a favor." Jane raised her left hand from the wheel momentarily to adjust the microphone. "Let me know if you can hear me all right."

"Clear as a bell," came the answer. The ham gave his name and asked helpfully, "What can I do for you?"

"Would you telephone a trailer court and make a reservation for us? We'll be arriving in about two hours."

"Glad to help," the friendly voice said. "Let's see if I have it straight. Party of four, reservations for



## KAY EVERETT CALLS CQ

one trailer in the name of Carlton. And you'll be here in two hours."

"That's right," Jane answered. "Thanks a million. I'll call you when we get there. This is W<sub>4</sub>HZP, mobile 7, signing off and clear, and leaving the air. Good-by."

There was a brief answering good-by, and then silence fell as the short-wave contact was broken.

"How was that, girls?"

A chorus of excited approval answered her.

"It was wonderful, Jane," said Kay. "I wish I could be a ham."

"Do you honestly?"

Kay nodded.

"There's no reason why you can't. If you want to learn, I'll teach you what I can."

"What's all that HZP stuff?" Flip interrupted.

"W<sub>4</sub>HZP? That's my radio name. As soon as a ham is licensed, the government assigns him a name, or a 'call.' It identifies him and tells what part of the world he lives in."

"How can it do that?"

"Every ham who lives in the United States, for example, has a call starting with W. There is a different letter for each country. All English calls begin with G. For France it's F; for Norway, LA; for New



Zealand, ZL. Once you learn these prefixes you can quickly spot the faraway stations.

"The number four," Jane went on, "means I live in the South. America is split into ten ham sections, and a ham's number depends on where he lives. The Southeast is section four. The rest of the call simply identifies me alphabetically among all the other hams in my section. Sometimes hams use funny slogans to spell out their calls more clearly. Did you ever hear me refer to myself as a *Happy Zebra Puppy*?"

The thought of Jane as a happy zebra puppy sent the girls rocking with laughter and put an end to sane conversation.

"Now that we have a place to stay tonight, let's relax and enjoy the scenery," said Diana when she got her breath back.

The sun was dodging among the rolling hills and the stark mesas. Its last light brought out the hidden blue and gold flecks of color in the rocks and blended them with the purple-green of the sagebrush. A small brown rock chuck, distant cousin to the squirrel, darted in front of the speeding car. All day long the tiny animals sped back and forth across the concrete ribbon of highway. They would rise up on their stubby hind legs, peer inquisitively at the juggernaut thundering down on them, then scurry



## KAY EVERETT CALLS CQ

into the sagebrush and dive into their hole-in-the-ground homes.

On the open range a dozen wild horses grazed placidly. A few stood neck to neck, gently nuzzling. As the sound of the car engine reached them, a handsome black stallion lifted his head. The entire herd froze for an instant in beautiful immobility. Then the stallion pawed the ground, tossed his mane, and galloped off. Instantly the others raced after him.

A handful of cotton-white clouds suddenly blushed, turned pinker, and in a moment was glaring red. The quickly gorgeous western sunset flared across the sky. Clouds grew heavy with crimson, then dulled with the first somber lavender. Lavender darkened into purple, and then even the purple faded. Except for the faint red glow that came from beyond the western horizon, the sky was darkening. The clouds that had lived through such brilliance were now flat gray sacks, their minute of glory over.

When twilight sat firmly on Wyoming, Solus was snug under a clump of cottonwoods in a trailer court on the outskirts of Rawlins. Jane had already telephoned the ham who, good as his word, had made their reservation. Diana plugged in the electric cord to flood the trailer with light; and while Kay refilled the water storage tank, Flip connected



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another hose to the camp's water pipes.

The camp was a little village in itself. All along "trailer row" children were being called to supper. Cooking odors filled the cool air. Watching the lights flicker on in town, Kay had a rush of homesickness. She wondered what the folks in Stafford were doing at that moment.

Diana felt it, too. Though no question was asked, she said, "It's eight o'clock here, so it's ten at home. Mom and Dad are probably listening to the radio."

"You forgot Daylight Saving," Kay reminded her. "It's eleven."

The girls shivered as the night chill crept in from the high plateaus. Then Flip broke the spell.

"Somebody's forgetting it's her turn to set the table."

Kay started guiltily. "That's me."

Diana took a piece of red crayon from her pocket. "I'll go with you," she said. "It's time I brought the map up to date."

Their homesickness fled before the warm brightness of the trailer, the aroma of good food sizzling on the stove.

"If anybody wants me," said Diana, "I'll be in the chart room."

And she ducked the balled-up paper bag Flip threw at her.



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— • — • — — • — *chapter three*

“I see we’ve made the front page.”

Diana, taking advantage of the trip to prepare for her next term’s work as news editor of the Stafford High Weekly, bought a newspaper in every town where the girls stopped. The breeze that streamed through the open car windows fluttered the edges of the one whose make-up she was now studying, for Solus had trundled out of Rawlins just after dawn, when the still-fresh air laid cool fingers on the day.



"Don't tell me it's that sheep story," said Flip from the back seat, where she and Kay were sprawled.

"It's a warning to trailerites," Diana replied. "I'll read it to you:

" 'Wyoming police today warned tourists, especially those traveling by car and trailer, to be on the lookout for a mysterious jewel thief. More than fifteen robberies, involving thousands of dollars in gems, have occurred in widely separated areas of Wyoming and neighboring states during the past two months.

" 'Detectives are convinced that the criminal is moving by car or trailer himself, and eluding capture by disguising himself as a vacationist. Owners of motor or trailer courts are asked to be on the alert and to report any suspicious visitor. Tourists stopping in such places should be careful to guard their valuables.

" 'Despite the number of successful thefts, police so far have few clues. There are no witnesses to any of the robberies, and no fingerprints have been found. In each case, however, the technique has been the same: windows, doors, or locks have been expertly jimmied, and marks left in the wood indicate the work was done by a knife blade of peculiar shape.' "



"That shouldn't worry us too much," said Jane. "We don't have anything with us worth stealing."

"There's Flip's—" Kay started to say "bracelet" when a sharp dig in the ribs suddenly reminded her of her promise to keep the secret. Luckily the breeze had carried her words away, and Jane heard nothing.

"What else does the paper say, Diana?" Flip tried to change the subject.

"Well, there's an item warning campers to be careful with matches. Seems the heat spell has increased the danger of forest fires."

"My, the paper's just full of good news," commented Jane drily. "Why don't you put it away and enjoy the scenery."

The road curled ahead, always on a slight but steady rise. "Feels as if we're really getting somewhere," Kay remarked.

"We are." Diana put her finger on a spot on the map. "Another few miles and we'll be at the Continental Divide."

The little dotted line that marked it zigzagged down the map from Canada to Mexico, sometimes riding the crest of mountain ranges, sometimes marching across empty spaces which were dead, sandy flats. It was the spinal column of the United States, the real dividing line between East and West.



Although the girls watched for a change in the landscape, they did not know exactly what they sought. The land was high and flat, so high and flat that it was hard to realize they were driving over the same country which towered into the sky when they had first seen it rise from the edge of the Midwestern plains.

Suddenly, at a point in the road no different from any other point, there was a simple sign:

#### CONTINENTAL DIVIDE

Kay was the first out of the car. She walked about, her eyes on the ground, her feet purposely scuffing the dirt on the edge of the highway. Kay Everett, she thought, on the crest of the continent, the backbone of the country.

"It doesn't look any different to me." That was Flip.

Diana reached into the rear of the car and mysteriously brought out a pop bottle filled with water. She uncorked it slowly.

"It may not look like anything much," she said, "but this is what it means."

Impressively she poured some water onto the soil a few inches to the east of the sign.

"The water I pour on this side will some day reach the Atlantic Ocean. But the water I pour over



here"—Diana moved three steps and emptied the bottle on the western side of the signpost—"will go into the Pacific."

The liquid oozed briefly into two puddles on the ground, then was greedily swallowed by the earth.

"By an underground route, no doubt," said Jane.

"Every river," Diana lectured, "every lake and creek and pool of water follows that rule. Whether a snowflake falls on one side of the Divide or the other determines which ocean it will eventually reach."

For a few minutes the quartet stamped about, awed at the feeling of being in the presence of some great, mysterious law of nature. Then Flip took a picture of the others draped around the road marker.

Driving onward again, the road continued to weave upward.

"You'd think we'd be going down now," said Flip.

"Don't bury the Divide so soon," said Kay. "That dotted line curls around a lot. We'll be crossing it again."

The steady hum of the motor and the growing heat of the day combined to cast a spell of silence. Car and trailer rocked around curves, arrowed down straightaways, rolled through an occasional tiny village—usually nothing more than a general store, a gas station, and a few yellow railroad shacks—that



dotted the highway at twenty- or thirty-mile intervals.

"Town coming up," Jane said. "It's our turn-off for Yellowstone National Park."

There were a few moments of maneuvering through the traffic, then they were off by themselves again on an even more desolate highway that cleaved northward.

"Hey," cried Flip. "Look. I don't get it."

It was indeed a strange legend that was painted in black block letters on a stark white board:

SAGEBRUSH IS FREE—TAKE SOME HOME

"Sounds like the comment of a cynic," said Jane.

"But why stick it up out here?"

"It's weird, all right."

If possible, the country grew more rugged. Far to the southwest loomed the snow peaks of the Uinta Mountains. Ahead, in the north, the massive Wind River range took shape. Once the girls spied a deer grazing in the sagebrush. Jane slowed the car, and Flip reached for her camera. But the sensitive animal instinctively realized it was being watched. It lifted its antlered head, sniffed, stood uncertainly for a moment, then abruptly turned and bounced gracefully back into the protecting bushes until it vanished in the distance.



## KAY EVERETT CALLS CQ

For hot, dusty miles not so much as a jack rabbit came into sight. Then a tiny, ramshackle wooden cabin slanted up from the sagebrush a few hundred yards away from the highway.

"Look at that!" yelled Flip.

"That's the fifth I've seen in the last two days," said Kay.

"They're shelter cabins," Diana explained. "I read in one of the guidebooks they were built to protect cowboys and herders who get caught out here overnight, or in a storm."

"Let's go out and look in the cabin," Flip pleaded. "I saw a dirt road leading to it. It would make a wonderful photo. One of you could lean in the doorway, and—well, zumpie! It'd be fun!"

"I suppose an empty cabin's safe enough." Jane backed down the highway to the dirt road. "Looks okay, if we unhook the trailer."

She parked the trailer on the shoulder of the road, uncoupled it, then turned the unburdened car on the sandy path. Skillfully she avoided stray chunks of rock and zigzagged between deep ruts that had been cut by the last heavy rain. Once she frightened a rabbit out of his hole; another time a lizard scuttled beneath the wheels of the car. Finally the girls arrived, joggled and dusty-mouthed, at the cabin.

As Jane pulled the car off the road onto a sandy



cleared space, Kay raced ahead of the others toward the rickety door, pushed against the weathered wood, and burst into the cabin. Stumbling, she flung her hands out in front of her—then dug her toes deep into the dirt floor and rocked back on her heels.

Diagonally across the cabin a man half-knelt in the corner. There was a scooped-out hole in the sandy ground in front of him. A box lay by his side. For a breathless split-second Kay and the man were silently rooted to the earth, staring at each other.

Suddenly the man moved. Like a striking snake one hand shot out and seized the box. Leaping lightly to his feet he dashed toward the frozen girl. Her eyes, still unaccustomed to the cabin's gloom, got only a brief impression of a short man, slender, middle-aged.

Then he was past her, out of the door and running over the scrubby ground. Kay screamed. The sound freed her from her frozen horror, and she scrambled after the man in time to see his leg disappear around the far side of the cabin. As Kay followed, there was the sound of an auto engine coughing into life. Helplessly she watched the man drive a gray coupé, which had been hidden from sight behind the cabin, onto the dirt road.

Halfway out of her car, Jane Carlton hesitated,



then ducked back behind the wheel. She pressed the starter as the coupé shot by. The engine roared as she fed gas. The wheels moved a few inches, then whirled uselessly as they dug into the sand. Again Jane started the stalled motor, pulled out the throttle, put the car in low gear, and tried to jerk it clear of the soft sand. The wheels whirred, the motor growled, wheezed, stopped. Jane looked up and saw the coupé turn on the concrete highway, head north around a curve. Fuming, she left the car and raced toward the shelter cabin, where Flip and Diana were comforting Kay.

"Kay! Are you all right?" Jane put her arm around the trembling girl and gently calmed her. Gradually Kay stopped shaking as her delayed reaction to the shock passed.

"I—I'm all right, I guess," she said. "I'm more scared than hurt. Who—who was he?"

"Gosh knows," said Flip. "Some prospector, maybe."

"Prospectors don't usually run around the desert in automobiles and business suits," Diana said. "He might have been just a tourist, like us, and thought we'd hold him for trespassing."

"That's pretty far-fetched, too," said Jane. "It's a mystery, but thank goodness nothing serious happened. I think, Flip, we've had enough excitement



for one day without posing for pictures. Let's get out of here—if we can," she added, remembering her trouble starting the car.

The four girls trooped back to the automobile. The rear wheels were hub-deep in fine sand, a deceptive layer of it that slithered and sank under the lightest pressure.

"Our own private sand trap," Diana groaned.

"We'll have to push, I'm afraid," said Jane. "You three get in back, and when I yell 'Go!', shove with all your strength."

Jane slid behind the wheel again. The motor raced. "Now!"

Shoulders and hands strained, feet slid in the yielding soil, but the car refused to budge. The sand spray stung arms and faces, powdered blouses and dungarees.

"Well, that's no help." Jane stared at the rebellious tires, now almost completely covered with sand. "They're stuck worse than ever."

"Why don't we try to dig the wheels out?"

"It might work, Kay. The problem is to find something to dig with. We've got everything in the world jammed in the car trunk except a shovel. And there's not much out here but sand, rocks, and sagebrush."

"Let's search," said Diana. She started scrambling



among the rocks. The others followed, peering under sagebrush and in crevices for any stone that might have a flat, sharp edge. Flip, her curiosity about the shelter cabin unquenched, unobtrusively edged toward it as she hunted for digging implements. She waited until Jane's back was turned, then ducked inside the door.

She stood still for a minute, letting her eyes adjust to the dim light. The cabin was dank and cheerless. Its walls were notched from the idle knife-play of hundreds of storm-marooned cowboys. A few empty cans kicked together in one corner were testimony to the cold, tasteless food they had gulped down.

Disappointed, Flip idly walked around the enclosure, scuffling her feet in the ground. As she neared the corner where the stranger had been kneeling, she noticed a gleam in the loose dirt of the hole he had dug. Quickly she dropped to her knees and clawed at the earth with her nails.

Her fingers touched something hard and cold. She drew back for an instant, half rose, then knelt again and went on digging. In the next moment she had two objects in the palm of her hand. She squealed aloud when she saw what they were: a gold cameo brooch and a sapphire ring whose starry pattern glowed even in the darkness of the cabin.



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Flip raced outside. "Look!" she cried. "I found them in the ground in the cabin!"

"Jewels? Out in the wilderness?"

"It's buried treasure! And I found it! It's ours!"

For an instant there was jubilation. Then Diana's coldly logical voice brought them back to frightened reality.

"It's buried treasure, all right. But it's not ours. Remember that news story in the paper this morning?"

"The robberies," Jane said slowly.

Diana nodded. "Exactly. This shelter cabin must be one of the hiding places for the loot. And the man we scared away—was the thief."



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— • — • — — • — *chapter four*

With the stolen jewels on their hands, getting out of the sand trap became doubly important. There was a great shout then, when Kay found half of a rusty, ancient license plate and the top of a tin can. With these, and two flat stones, the four girls dug at the sand-clogged wheels for close to an hour.

At first it was fun, digging and scooping and



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wriggling on stomachs to get underneath the car and to reach a hand around to the inside of the wheels. Then the novelty palled, and frustration set in. The sand refused to be shoveled. Scoop out a canful, get one spot almost clear, and a whole hummock of new sand would slide from somewhere to take its place.

"It's as good as we're going to get it," said Jane, wiping her streaming forehead with one dirty forearm. They had reached the harder subsurface sand, and the rear wheels stood almost clear on what appeared to be a solid base.

"Let's see what happens," she said.

Once more Jane got in the car and started the engine. She let the clutch pedal out sharply, and the car surged forward. But the shout of triumph was cut off when the wheels slid sickeningly only six inches ahead of where they had been. After the sand spray cleared, the girls looked bleakly at the tires, buried again in soft sand.

"We can't do all that shoveling over."

Jane shook her head. She was silent.

"I'm sorry I ever asked you to come down here," Flip blurted.

"It's not your fault," said Jane. "I should have known better. But who'd think we would get stuck



KAY EVERETT CALLS CQ

this way? Or that there'd be a criminal in the cabin? Just be glad we don't have the trailer with us. We'd never get out of here."

"The question is," said Diana, "will we anyway?"

Jane smiled weakly. "That's what I'm wondering."

"We've been here two hours already," said Flip, "and I can think of lots of places I'd rather spend the night."

"The night?" Jane looked up at the sky, startled. The sun was well down in the west, and desert twilights were short. Marooned on the desert, she thought. With that horrible man around somewhere, lurking, maybe waiting for darkness to come back and—no, it's too melodramatic. She forced the thought from her mind. "Maybe one of us could walk to the nearest town for help?"

"No," said Diana. "The nearest one is twenty miles away."

"Our best bet is to flag a car," said Jane.

"If one would only come along," Flip added.

"There ought to be plenty of traffic on a main road leading to Yellowstone," Kay said, "but this one has certainly been deserted today."

They concentrated on the distant highway—whose thin strip of concrete now seemed like the most heavenly place in the world—and when a truck



appeared in the distance they leaped into action. Handkerchiefs waved, voices screamed, Jane leaned on the car horn.

For a moment the truck seemed to slow down as its driver searched for the origin of the noise, but it kept on moving and finally slipped out of sight around a curve.

No one spoke. Through each mind raced a dozen different thoughts.

"He must have thought we were fooling."

"Maybe he couldn't see us—the road out here does dip."

"Some people just don't like to get involved."

"What are we going to do?"

Jane summed it up with grim humor. "All we need now is to have a buzzard fly overhead. We'd make a perfect scene for *Danger in the Desert*."

Jane stared at the car. Finally she said, "We can always try to raise help via the rig. Goodness knows how close the nearest ham is, or how long it would take him to get a tow-truck out to us. But it's a chance."

Jane was about to get into the car and switch on the short-wave set when the sound of another automobile hummed out of the distance. A blue sedan came into sight. Jane stared at it unbelievably.



## KAY EVERETT CALLS CQ

"Why, look!" she whispered. Then she jumped into the front seat and began pounding the horn. Despite her anxiety, she applied pressure steadily and carefully, and in a queer, definite rhythm.

"Blaa, blip, blaa, blip. . . . blaa, blaa, blip, blaa."

"What in the world?" said Diana.

The weird signals were repeated. Long, short, long, short; then two longs, a short, and a long.

"Whatever it is, it's working," cried Flip, for the blue sedan slowed, hesitated, then turned and headed down the side road toward them. Flip was hopping up and down, clapping her hands, as the car came to a stop a few yards away. Jane grinned delightedly at the tall, freckled, redhaired young man who jumped out.

"Hello," he said. "Who's the ham here?"

"I am." Jane stepped forward. "Thank heavens you recognized the CQ I sent. I didn't know how clear International Morse Code would sound on an auto horn. And I was afraid I was too nervous to send it clearly."

"It was perfect," the boy said. "But how'd you know I'm a radio amateur?"

"By the antenna on the back of your car. I figured you must have a mobile rig like mine."

"I'm a W<sub>4</sub>," he said, and gave his call letters.



"Otherwise known as Tim Rhodes. At your service, ladies."

"W<sub>4</sub>—you must be from the South, too." Jane turned to look at his license plate. "Georgia. Quite a coincidence to meet you way out here. We're from North Carolina. I'm W<sub>4</sub>HZP—Jane Carlton. This is Flip Adams, Diana Lane, and Kay Everett. And we're in trouble."

Jane explained their predicament, and how they had gotten into it. The other girls crowded around as Tim Rhodes sized up the situation. Kay's voice carried the relief they all felt.

"We're sure glad you're here."

"And we've tried everything." Flip indicated the stones, the can, the license plate. "Nothing worked."

"Sand can be treacherous, all right," Tim agreed. "Suppose I help you three push while Jane drives. Maybe my extra weight will be enough to turn the trick."

Again Jane started the car, again they heaved, again the wheels moved a fraction of a foot, and again they sank dismally into a new nest of sand.

"Now what?" asked Jane.

"Well, I can drive back to the last town and get a tow truck," Tim said. "But it would take over an hour just to do the round trip, and it'll be dark pretty soon."



"Time means nothing to us," commented Diana airily. "We've only been in here for hours and hours. There's no rush."

"Anyway," Jane said, "there's no reason to get upset. If we have to stay here overnight we can sleep in the trailer. There's enough food and water."

"Where are you heading?" asked Tim.

"Yellowstone."

"Really? I'm going that way myself." Tim leaned an elbow on the hood of the mired car and looked intently at Jane. Self-consciously she tried to wipe off some of the dirt that begrimed her face.

"You know," Tim went on, "you look familiar. But I'm sure I'd never forget you if we'd met before."

Jane laughed. "You can't tell anything from the way I must look now."

"No, seriously."

"Well," she said, "besides living in Stafford, belonging to a Carolina radio club, going to the University—"

"That's it!" he interrupted. "I saw your picture in the yearbook. Very pretty. Then last semester I never spotted you around the campus. What happened?"

"I wasn't in college at all last term. Asthma laid



me low. But I'm hoping to be back this September for my senior year."

"That's great," Tim exclaimed. "I'll be there to finish my postgrad work."

"I wonder if this stuff would be good to eat? I'm awfully hungry." Flip held a clump of sagebrush near her face, breathing in the sweetish smell.

"Good to eat?" Tim gazed at the prickly sagebrush with a queer expression. "I don't think so. But it might be good for something else. Did you see that sign on the highway about sagebrush being free? Well, let's pull some up and make it do something useful for once in its life."

Four pairs of puzzled eyes turned upon him.

"You'll see," he said. He reached into his car. "Here's some old gloves. We'll need them in picking the stuff. It's spiky."

"We have some, too," said Kay.

A minute later five gloved figures swarmed over the scrubby land in the lengthening rock shadows of the dying afternoon, digging, pulling, dragging. Object: sagebrush, suddenly and mysteriously grown precious. A small mountain of sagebrush grew by the side of the car until Tim called a halt.

"Now, here's the idea. I'm going to jack up the rear of the car, and when I get it high enough I



want you to throw this sagebrush under both rear tires. Put it underneath the tires, in back of them and ahead of them. Then we'll do the same up front. Lay down enough in a long path so that the car will have a fairly thick layer of sagebrush to ride on.

"The wheels have been slipping into the sand because they had nothing firm to catch onto. No traction. But when the sand is well lined with brush, we'll all push, and out she'll come."

He hesitated, then added, "I hope."

The girls laid down the sagebrush carpet as carefully as any red velvet was ever placed for royalty. Finally it formed a thick green lane extending from behind the rear wheels to in front of the forward ones and on over the sand to the harder-packed dirt of the side road.

For the seventh time Jane started the motor. For the seventh time they were showered with flying sand. For the seventh time the car jerked forward a few inches. And then, for the first time, it kept moving—sliding, slipping, but moving, crunching the sagebrush, until suddenly it shot free onto the road.

It was twilight by the time the girls reached the trailer and parted from Tim Rhodes.

"You'd better give me that brooch and ring," he said, after shrugging off their thanks for his help.



"I'll turn them over to the police in the next town. There's no reason for you to get mixed up in this thing."

"But we found the jewels," Diana said. "And we saw the thief. We might be able to help solve these crimes."

"I think Diana's just playing newspaper reporter," said Tim, not unkindly, as Jane handed him the jewels. "You're on a vacation. Forget this and have fun. One more thing. Take this trailer a few miles down the road before you park for the night. Never can tell who might come prowling around the shelter cabin."

Then he waved and grinned, got into his car, and drove away. Jane stood watching until the tail light winked out in the gathering dusk. Flip rummaged among the partitioned shelves to find the box of candles stocked for just such an emergency.

"Tim was nice," she said. "I think he really likes you, Jane."

Jane laughed, but there was a tinge of a blush on her face. "Oh, that was just ham spirit. Hams are friendly people, and they'll do almost anything for one another."

"Just the same," said Diana. "I think it was a good thing you're a *girl* ham."



KAY EVERETT CALLS CQ

"I must admit a YL is always popular. After all, there still aren't too many of us."

"YL?"

"That's ham slang for a girl operator. It means 'young lady.'"

"Well, young lady," Diana replied. "I think you'd be popular with Tim Rhodes even if you weren't a ham."

"Don't mind them poking fun at you, Jane," said Kay. "They'll shut up as soon as you stop paying attention to them." She hesitated a moment. "Jane—I'd really like to be a ham. Would you teach me?"

Jane came quickly over to the younger girl and put an arm around her. "I'd be happy to, Kay. I think you'll make a good ham."

"I don't want to be a bother to you. Maybe you'd rather—"

Jane cut her short. "Bother! I'll enjoy it. Of course, I won't be able to teach you too much on this trip. I haven't enough of the proper equipment with me, for one thing; and there isn't enough time to concentrate on ham radio, for another."

"Oh, I'll wait till we get home to Stafford."

"You don't have to do that, either. There are lots of things you can learn while we're traveling. The International Morse Code, for instance; some of the technical terms; and some of the tricks and customs



of the hobby. But we won't start tonight. You've had a hard enough day already."

Next afternoon the vast openness of the country took on a green skirt of pine and evergreen as Solus sped northward toward Yellowstone Park. While Flip and Diana worked on the maps and diary, Kay and Jane talked ham radio. Kay asked:

"Will I have to learn a lot of things to be a ham?"

"Only a few, really. First you have to pass a government examination in sending and receiving at least five words a minute in code dots and dashes. That's the basic requirement for the new 'novice class' ham license. Later on you'll be faster at code and want to get your 'general class' license. You'll need thirteen words a minute for that. But the novice class is made to order for newcomers to the hobby, like you."

"But all you do, Jane, is talk into a microphone."

"Sometimes, yes. But I know code. All hams have to. Then, when they are licensed, they can communicate either by code or by voice. Learning the code is just a matter of memory and practice."

"What else is there?"

"Well, the rest of the government test will ask you some questions about the elementary technical side of radio, and some of the rules that you have to follow when you're operating on the air. After you



## KAY EVERETT CALLS CQ

pass the test, the Federal Communications Commission sends you your free amateur radio license, and you're a ham. There are heavy penalties—fines and even jail terms—for anyone who operates a short-wave transmitter without having that FCC license."

"It sounds awfully hard," Kay said doubtfully.

"It's not so bad as I make it sound," answered Jane, "but it does require a little work. And most of all a genuine interest. Some of the information you'll need is already prepared in books written especially for beginners like you, Kay. Usually newcomers to the hobby get a lot of help from other hams, too; they're always glad to lend a hand to anyone who's interested."

"I know it'll be fun."

"Oh, yes. But there's more than fun. Hams—"

"Zumpie!"

Flip was pointing out the window. There were mountains mushrooming on all sides now, and in the distance a herd of giant animals moved, slowly grazing.

"Deer!" cried Flip. "Millions of 'em!"

"They're too big for deer," said Jane.

"Elk!" said Kay. "They must be elk. Diana said we'd reach an elk refuge today."

A big bull elk raised his antlered massive head



and the echo of his trumpeting call bounced off the surrounding mountains. As if at a signal, a rumble of thunder rolled among the peaks, and a jagged chain of lightning ripped the sky. Almost in a twinkling the landscape had changed, and the girls from Stafford were awed by scenes that seemed to have been lifted straight from the pages of a fairy-tale book.

On one side of them the great, flat, grassy plain of Jackson Hole stretched as far as they could see. And on the other, a magnificent series of gigantic gray towers literally ripped up into the sky—the Grand Teton Mountains. Their knifelike edges pierced the storm clouds that hovered above, and hard rain drove through the overcast atmosphere.

Jane concentrated on driving, for the wet, curvy road was slippery, and the storm cut visibility to a few score yards. Finally, in one of the last towns before the highway took off for Yellowstone, she drove into a trailer site.

“North Carolina, eh?” The manager looked over Jane’s shoulder as she signed the tourist registration book. “Guess you’re the gal I’m supposed to give a message to. You know a fellow named Tim Rhodes?”

Jane nodded, her eyes suddenly bright. “Is he here?”



"Not now," the man grunted. "Said to tell you he'd look you up here when he came back from a hike. Got in last night, but said he was going to stay over a day to see the country."

Kay and Diana exchanged glances; then all three of the girls looked at Jane, whose face had gone a fiery crimson.

"What a coincidence!" Diana grinned wickedly.

"Yes," Flip chimed in, "he just happened to decide to 'see the country.'"

"Now cut it out," Jane ordered. "Let's get back to the trailer and start supper."

As the girls approached Solus the twilight rain all but blacked out the gray mystery of the huge Tetons.

A spare figure stepped out from the shelter of a lean-to. Kay shivered a little until she saw the cheerful thatch of red hair.

"Hi, there," Tim called. "I thought I'd stick around to make sure everything was okay with you girls. Have any more trouble after the sand pit? Any jewel thieves come calling on you?"

"Not a one." Jane gave a strange little laugh and smoothed her wind-tossed hair. "But I'm glad you waited. I was afraid we wouldn't see you again."

"No danger of that," smiled Tim. "Say," he added with forced casualness, "how about celebrat-



ing your escape from the desert by having dinner with me at a lodge down the road? Save you doing the dishes." His blue eyes looked straight into Jane's.

"Oh, boy," said Flip, "it would be fun to eat out for a change."

Unobtrusively Kay's foot swung not so gently against Flip's ankle. "Did you forget we were going to write letters home tonight? Besides, I'll bet Tim and Jane would like to talk about ham radio without our interrupting."

"Oh, you're all welcome to come along," Tim protested, but his voice lacked its usual conviction.

"No, Kay's right," Diana put in. "We have letters and laundry to do. And we shouldn't let the chores pile up."

Tim agreed quickly. "In that case, I'll say good-bye to you three for a while. You'll probably be asleep by the time we get back."

A couple of hours later the girls were sprawled across their bunk beds. Diana was finishing a letter, and Kay was putting the last touches to a freshly ironed blouse. Flip was trying to discipline her wispy hair by rolling it in soft pieces of cloth.

As Diana looked up Flip pulled the last strip from an old dress. "They make wonderful rag



curlers; I just wet my hair and wind. But I'm one short," she said, fingering an unbound lock of hair.

"I wonder if Jane really likes Tim," Diana mused. "It wasn't any concern for *us* that made him wait around."

"Sure she likes him," grinned Flip. "Notice how she blushes when she talks to him?"

"Well," said Kay, "I'm going to hit the hay. How about you two?"

"Guess so," Diana agreed, "I'm at the end of this letter."

"I'll be along as soon as I find something to curl this last string of hair," Flip said.

Solus was dark and quiet when Jane and Tim returned. The storm had cleared, and the sky, looking arm-length near, was salted with stars.

Hand in hand, they stood quietly in the still night. Jane looked up at the sparkling heavens.

"Beautiful, isn't it?" she said.

Tim never took his eyes from her face. "Yes," he said. His voice was suddenly different, the light, bantering tone replaced by an intense seriousness. "Jane, I just can't go off and leave you and not know if I'll ever see you again. Suppose I plan to stay over in Yellowstone while you're there—show you around, point out the high spots?"

"But you've seen it before," said Jane. "You'd be



bored acting as guide to a bunch of squealing girls."

"I don't think so," he said.

Determinedly Jane slipped her hand from his fingers. "You'll feel differently in the morning. Let's talk about it then."

After a whispered good night she moved toward the trailer. On an impulse she stopped at the car. At that altitude radio reception must be sharp, she thought. There was a low hum as she switched on the short-wave converter and the radio warmed up.

Waiting for the power to reach full strength, Jane let her mind wonder about Tim Rhodes. Ridiculous, she knew, to feel as she did about someone she'd met only yesterday. Love at first sight: she knew what the books said about that fable. Yet here she was, all sort of trembly-kneed when Tim looked at her, and desperately hoping he really would be in Yellowstone with them . . .

The hum from the set reached a peak. Keeping the volume low, Jane twirled the receiver knob. Voices came to her from out of the night with startling clarity. Idly she listened to scraps of one conversation and another when a new voice caught her ear. There was a southern drawl to it, a dear familiar accent; and the call number, as it broadcast its "CQ" into the air, sent a thrill of recognition through the listening girl.



## KAY EVERETT CALLS CQ

"It's Joe," she said to herself, almost unbelieving. "Joe Wilson, from Stafford!"

The CQ came booming into the car. Jane switched on her transmitter.

"If I can only get to him in time," she muttered. "Maybe we can talk to the folks back home."

She fumbled with a switch once or twice, shook her head in annoyance. "Something's wrong," she said to herself. "The meter isn't reading properly. I know it isn't a bad tube. I tested them all the other day. Maybe Kay did something to the transmitter when she was examining it today."

Jane turned the set off so she could check the parts, then ran to the trunk of the car, opened it, and by flashlight examined the compact instrument. Expertly her sensitive fingers ran over the various parts of the set. Everything seemed in order until she felt a sticky glob of wax. She muttered an exclamation under her breath.

"That condenser's gone bad. I'll have to get another one and solder it in place. I only hope Joe stays on the air."

Jane raced to the trailer, snapped on the light, and pawed through a kit of spare parts. But there was no condenser.

"I know I had one," she said. "I know I did!"



She moved to the bunk beds and ruthlessly shook the three sleeping forms.

"Kay! Flip! Wake up! Diana, wake up!"

Slowly three tousled heads peered from under the covers.

"Did any of you do anything to the radio?"

A chorus of indignant no's answered her.

"Kay, are you sure you didn't touch the transmitter? Or take anything from the kit?"

"Not a thing, Jane, honest. What's the matter?"

"There's a ham from Stafford on the air. I wanted to try to contact him, but there's a bad condenser in the transmitter, and my extra one is missing. If I don't find it soon we'll lose our chance of talking to home." Recklessly Jane overturned the box of parts on a blanket and began searching through the jumble of equipment.

"What's a condenser?" Flip asked.

"It's a sort of small tubular gadget with wires sticking out of each end."

"Anything like this?" Flip faltered in a small voice. She took something out of her hair. "I needed one more curler, and I couldn't find a thing till I came across this in that box."

She handed Jane a small object shaped much like an old-fashioned kid curler.



KAY EVERETT CALLS CQ

"The condenser!" yelled Jane. "Flip, I—I—if I had the time I'd put you across my knees!"

"I'm awfully sorry, Jane, but I didn't—"

But Jane Carlton had no time to listen to apologies. With rapid efficiency she grabbed an extension cord from her kit, connected one end of it to the trailer's electric outlet and the other to the electric soldering iron she took from a small tool box. Critically she surveyed the over-all length of the make-shift affair.

"It should reach," she said.

Careful not to entangle the wire among any of the odds and ends in the trailer, Jane worked her way to the car trunk. When she held the soldering iron at the base of the useless condenser there was about one foot of free play left—not much, but just enough.

Kay, a coat tossed over her pajamas, ran out of the trailer. "Can I help?" she called.

"Hold this flashlight and try to listen for Joe Wilson on the receiver up front."

With Kay throwing a beam of light on the transmitter, Jane crawled into the trunk. Slowly the heat of the iron-tipped tool melted the connection which held the bad condenser in place. Soon it was loose enough for her to yank it out.



"I can barely hear anything on the radio now," Kay said. "The voice seems to be dying out."

"Howling monkeys!" said Jane through gritted teeth. "Now our reception's fading! Well, there's nothing to do but finish this and keep our fingers crossed."

Dexterously she fitted the new condenser into place and heated the metallic connection until it was made firm.

"There!" She scrambled out of the trunk, disconnected the soldering iron, and hurried to the front seat of the car. By now Flip and Diana had crowded in as well. No sound came from the radio.

"Maybe we can still reach him," said Jane. "He may be waiting for someone to answer his CQ."

"This is W<sub>4</sub>HZP," Jane began repeating her call letters, and acknowledged Joe Wilson's CQ. "Come in, Joe; come in, please."

For a long moment the girls heard nothing but the fitful cracklings of static. Then—

"Hello, W<sub>4</sub>HZP, hello, HZP. Is that you, Jane? Where in the world are you?"

Flip breathed a huge sigh of relief.

"Joe!" Jane's voice was excited. "How wonderful to hear from home."

Briefly Jane told about their trip. "We're at the



edge of Yellowstone now," she concluded, "and looking forward to all the geysers and waterfalls that are waiting for us. But tell us what's going on in Stafford."

"Nothing much new," Joe's voice came back after the ritual interchange of call letters signing off and on. "Stafford's the same as ever. Nice warm weather, picnics by the river." He rambled on for a while, retailing local gossip.

"I wish we could talk to our parents like this," said Kay.

"Of course!" said Jane.

"You mean we really can?"

"You'll see," Jane promised.

When Joe Wilson turned the conversation back to her, Jane said, "It's too late tonight, Joe, but the girls would like to talk to their folks on short wave. If you could have them visit you, we could arrange a schedule. How about it?"

While Jane was waiting for an answer Kay asked, "What's a 'schedule'?"

"It's a radio date, Kay. All it means is that Joe and I agree to look for each other on the air at a certain time, and at a certain place on the dial. Talking to him tonight was just an accident; but if we have a schedule the contact will be planned in advance."

"That's fine with me." Joe Wilson's voice boomed



approval of the idea. "How about ten o'clock Friday night?"

Jane figured hastily. "That will be seven P.M. out here. Four days from now. It suits us."

Swiftly the technical plans for the short-wave meeting were made, and a few minutes later final good nights put an end to the conversation. But, filled with thoughts of tomorrow's sights—and with a sudden homesickness at the thought of speaking to their parents—it was a long time before the girls went back to sleep.



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The bright morning sun slanted through tremendous forests and glittered on the fast-moving river that paralleled the wide sweep of road. The sky looked as if it were freshly washed; only a few lathery puffs of white cloud remained. The air was sharp, and each breathful carried the pungent aroma of pine and spruce and other green, growing things. It was a day to be alive.

By the side of the neat log-cabin office that



guarded the entrance to the National Park stood a young, smiling ranger. The girls had already learned to respect and depend on these green-clad walking encyclopedias of outdoor lore.

"Anything special to see?" Flip asked him as he made out their trailer permit.

"Lots of things, young lady. You don't want to miss Old Faithful, and Yellowstone Falls, and the Paint Pots, and—well, here's a map. If you take a look at everything marked on there you can't go wrong."

Between the map and the efficient guide service provided by Tim Rhodes, who knew Yellowstone from previous visits, not a point of interest from Thumb at the south to Mammoth Hot Springs in the north escaped rapturous attention.

From the moment they had started on the first leg of the figure-eight drive that circled the Park, the girls were constantly on the go—climbing, hiking, peering, tiptoeing, craning to see a new wonder.

There were geysers that bubbled, and geysers that sprayed, and geysers that boomed. There were rainbow-colored springs of hot, bubbling water, and ugly white ones. In one cleft of earth a sluggish mound of mud boiled and sucked with horrible gurgles; in another, crystal-clear water shimmered



gently, and a pebble dropped into its depthless beauty kept falling, falling, until it disappeared from sight.

Older geysers had built up terraces of mineral around themselves, and now and again, with a throaty rumbling from beneath the ground, a new eruption would gush from their weird mouths. Old Faithful, most punctual of all the geysers, was only fifteen seconds late, according to Flip's wrist watch, when it thundered its waters more than one hundred feet into the air.

There were areas, too, of sheer natural beauty. From Inspiration Point, a peninsula of land jutting out almost into the center of the Grand Canyon of the Yellowstone River, the girls gazed straight down on the foaming waters that carved their way beneath the yellow and brown rock of the cliff walls.

Looking back they saw the Falls themselves, twice as high as Niagara, rushing out of the pine-clad mountains and plunging downward at express-train speed. Graceful minarets of rock, many of them topped by birds' nests, reared upward from the canyon depths.

Once Kay saw an eagle below them teaching its fledgling to fly. Time and again the big bird would nudge the eaglet off the rock and scream encouragement while the wildly fluttering youngster beat its



wings enough to get it safely home again. The thought of being higher in the sky than an eagle was a bursting one.

Small wonder, then, that it was all but impossible to put their feelings into words.

"There's just so much," said Flip. "And it's all so—so—"

"We know what you mean," Jane laughed.

"And we haven't seen half of it yet," Diana added.

Five hours later, the wonders they had seen still whirling in their minds, the girls from Stafford flopped in exhaustion on the grass around the trailer. They had camped in a relatively isolated section. Tim was staying in a cabin center near by. Only a few other trailers kept Solus company, and not a great distance away from them flowed the swift Yellowstone River.

There was a long, relaxed silence. Reluctantly, Jane stood up. "Might as well clean up and start thinking about some food. Who's on kitchen duty tonight?"

"I am," said Diana.

"And me," Flip echoed wearily.

Kay luxuriated in the cool sweetness of the grass while the others began their tasks. She stretched, rolled over, buried her face and hands in it. Then



she got up and walked leisurely to the banks of the near-by river.

In the twilight the water took on a deeper hue. Every now and then Kay fancied she could see the darker shape of a leaping trout flashing beneath the surface. She took off her shoes and socks and waded a short distance out into the current. She wriggled her toes into the muddy bottom.

"Like a water nymph."

Kay whirled at the sound of the voice. A slender, middle-aged man with a thick shock of white hair lounged on the bank, watching her. He was wearing a short jacket, a shirt open at the throat, and high fisherman's boots that came midway between his knees and hips. In one hand he balanced a fishing rod. His face, though lined, was frank and pleasant.

Kay blushed furiously and began to scramble out.

"Don't rush away on my account," said the man. "It just happens that you're standing in one of the best fishing spots in the whole river. But I can wait till you're through."

To Kay's horror he sat down and lit a cigarette. The idea of having him watch her put her shoes and socks back on, as if she were a baby! The man smiled at her confusion. But it was, Kay noticed, a kind smile.

"Of course," he said, in the same pleasant, even



tone, "if you want to stay there and you stand quietly, you can watch me make a few casts."

"I've always wanted to learn to fish," Kay heard herself saying. She was surprised at the calm way she spoke. She felt none of the annoying shyness that so often afflicted her in her conversation with strangers. On the contrary, she felt attracted to this man.

"Have you now?" said the man. "Ever done any fly casting?"

Kay shook her head. The man got up in one graceful motion.

"No time like the present to learn."

Almost before Kay knew what she was doing, she had clambered back onto the grassy bank next to the man, and the resilient fishing rod was in her hands. The man's strong, sunburned hands moved her awkward fingers into the proper position. She watched his fingers cover hers. They were long, delicate, supple, but deadly strong. A look of concern came over his face.

"Say, we haven't been properly introduced, do you know that?"

Kay laughed. "That's right."

"My name's Ben Judson."

"Mine's Kay."

"Now that we have that over with," said Ben



## KAY EVERETT CALLS CQ

Judson, "here's how you cast for a nice, fat trout."

He took the rod, brought back his arm, spiraled the fly in a long, smooth arc of motion that ended with a perfectly timed snap of the wrist. The line lazied far out over the water, the wrist-flick giving it distance. Gently, almost without ruffling the surface, the fly dipped beneath the surface of a quiet pool alongside the bank.

"See," he said, "let the rod do the work, not your arm. No jerkiness. Keep it all one whipping motion."

The man demonstrated once more, then put the rod in Kay's hand and coached her efforts. At first the line twisted crazily and splashed in the river. After a few more tries it began to sail in a half curve and land smoothly, though not a great distance away.

"You're getting there," said Ben.

The twilight was dimming when Kay and Ben Judson stopped casting. For no reason she could put her finger on, Kay was suddenly glad she had met this man. Free from all her old shyness, she felt as if Ben were a long-time friend.

"Thanks loads for the lesson," she said. "I go in that direction." She pointed toward the clump of trees where Solus sat. "That's where my friends and our trailer are."



"Isn't that a coincidence?" laughed Ben. "I go the same way. Got a trailer there too." He pointed to one that had obviously been built with lavish care. The wood was lacquered to a glossy finish, the metal trim gleamed. No speck of dirt marred the graceful body. "Like it?"

"It's lovely," said Kay.

She stepped inside and gasped at the unexpected sight. Fine-grained woods blended to form exquisitely paneled walls. The furniture was hand-carved out of similar woods. Even the ash trays and wastebaskets told the story of a master craftsman who had put his heart into his work.

At one end of the trailer was a neat workbench. Various tools hung from pegs and fitted in slots above it: finely graduated series of carving, shaping, and polishing implements. Something in the back of Kay's mind reached out as she saw the row of slender, oddly shaped knives. Dimly she recalled some words about a "knife blade of peculiar shape." In her mind's ear she suddenly heard Diana reading the news item about the jewel thief. She shook her head, thinking "How ridiculous!" and then said aloud:

"You made all this?"

Ben Judson nodded. Pride gleamed in his gray eyes.



"But how did you ever—?"

"It used to be my work," he said. "I was an expert woodworker in my day. Cabinet making, too."

"Really?" Kay was excited at the coincidence. "My dad owns a cabinet-making plant back home."

"You don't say!" Judson, flattered by the girl's interest, started to ask about her father when he was interrupted by a voice calling from a distance.

"Kay! Kay Everett!"

If the words had been a magic formula they could not have caused so sudden a change in Ben Judson. His gray eyes went cold and looked piercingly at the girl for a long minute. When he turned away he was a different man. The warm congeniality was gone, and in its place, a cold aloofness.

"You'd best be getting back. Your friends are worried."

Puzzled, Kay left the trailer and began to walk toward where the light in Solus's kitchen window beckoned with the promise of food.

There was a reason, she knew, for Judson's sudden change of heart. It had occurred just after Flip called her. Just then Flip's voice sounded again.

"Kay! Kay Everett!"

"Everett," breathed Kay. That was the magic word. Judson hadn't known her last name till Flip shouted it. Why should the name Everett change



Ben from a genial friend to a cold, secretive man of mystery?

Kay hurried on and was close to the trailer when she saw Flip at the edge of the woods talking to a fat woman in a fur coat.

"Isn't that silly," thought Kay, "wearing a fur coat in this weather?"

She walked closer and suddenly stopped stock still. She remembered that old vaudeville joke, "That was no lady; that was my wife." And aloud to herself she said, "That's no woman. That's a bear!"

A bear it was—a large, brown, hungry bear that was eating bread as fast as Filippa Adams could rip the loaf into chunks.

"Here, bear," Flip was calling, "here, bear, nice bear, have some more bread."

Barely inches from the animal, Flip was nonchalantly handing it morsels.

"Flip," Kay called in a low voice, controlling her alarm. "Flip."

Flip looked up and waved. "Hi!" she said. "Look at the bear."

"I see him," said Kay. "Listen, Flip. I want you to do exactly as I tell you."

"Why, what's the—" Flip saw the scared, serious look on Kay's face and dropped her bantering tone. "Is he dangerous?" she quavered.



"Never mind that, just do what I tell you. Feed him a big chunk of bread, then throw the whole loaf over his head, so he'll have to turn around to get it."

Flip handed the animal another mouthful, then heaved the food over its snout. The bear looked foolishly at her for a moment, then awkwardly twisted around and lumbered off on all fours after the food, which had landed several yards in back of him.

"Now," yelled Kay, suiting her actions to her words. "Run!"

Both girls made a dash for the trailer, leaped inside, and shut the door. The slam brought Jane and Diana. Quickly Kay explained what had happened.

"Flip! Don't you know you're not supposed to feed the bears," Jane lectured. "They look cute, but they can really be dangerous. If you ran out of bread and he was still hungry, *you* would have looked tasty to him, too."

Flip gulped. Kay peered out the window. "He's finished the bread," she reported. "He's looking around; now he's standing up; there! he's going back into the woods."

There was a general sigh of relief.

Nearly twenty-four hours later the four girls and



Tim Rhodes drove back to the trailer after another day of sight-seeing.

"I'm ready to eat and to crawl in bed," yawned Flip. "What a workout we had today!"

"There'll be no crawling in bed for anyone for a while," said Jane. "Unless you don't want to say hello to your folks. Have you forgotten that we have a short-wave schedule tonight with Stafford?"

Diana pushed open the trailer door, started to enter, then drew back. For once all the assurance dropped from her voice. "Jane!" she called.

Jane Carlton and Tim Rhodes sprang to the door. The inside of the trailer was a shambles. Empty suitcases lay sprawling open in the midst of the debris of clothes, shoes, cosmetics; the bunk beds had been torn apart ruthlessly, and bed linen straggled over the floor. All the shelves were swept clear, and their contents scattered. Cabinet doors hung open, and tins of food rolled in the pantry. Solus had been ransacked with devastating thoroughness.

"Bears? Could it have been that bear?" quavered Flip.

"Bears don't open trailer doors," said Tim.

"We've been robbed," said Diana flatly.

"Well, let's see," said Jane. "We've got to straighten this out, anyway."

Bit by bit order was restored out of the chaos.



"There's only one theory," said Diana as she worked. "It's the jewel thief again. He probably followed us here, waited until he knew we'd be away for a long time, and then tried to find that ring and brooch we picked up in the shelter cabin."

"That's pretty melodramatic," said Kay.

"Do you have a better explanation?"

"No. But if he were the thief why wouldn't he have taken something of ours? So far not a thing seems to be missing."

"One thing is." Flip spoke up, but so quietly that all eyes swiveled to her. "My bracelet is gone. It was in the bottom of this suitcase."

"Well, we told you to leave that home," said Diana.

"Wait a minute." Jane Carlton's voice was brusque. "What's all this about a bracelet? What bracelet, Flip?"

Haltingly, Flip told the story of her birthday present, and the promise of secrecy to which she had sworn Kay and Diana.

"I won't deny I'm angry, Flip. And a little hurt that you didn't trust me. But it will do no good to scold you about that now. I only hope this has taught you a lesson."

Flip nodded.

"The problem is to get it back," Jane went on. "Your mother—well, I hate to think what she'll say



after all the promises we made to keep you out of trouble, to keep you from harming yourself."

"Maybe we should start all over and make a complete search for it?" Flip suggested.

"There's no time for that now," Tim broke in. He gestured toward his wrist watch. "It's almost time to contact Joe Wilson in Stafford."

"For heaven's sake, don't anyone say anything about the bracelet," Flip begged.

A few minutes later all four girls were clustered around the radio waiting expectantly as Jane twirled the dials. Then Wilson's voice came through, CQ-ing Jane's call letters.

In another minute the contact was established. Almost before Kay knew it she heard Joe's voice saying, "Here's Mr. Everett at the mike," and then there was her father's bluff voice calling out, "Hello, Kay. We've missed you."

It seemed to Kay that she would never run out of questions to ask about Stafford and of things to recount relating to her trip. She knew the others were waiting patiently to speak with their families, and so she lumped all the unspoken thoughts in one last incoherent sentence.

"I'm learning about ham radio from Jane, and how to pick sagebrush, and what bears and geysers look like, and—" she took a breath "—and a man



named Ben Judson taught me yesterday how to fish for rainbow trout. You should see his trailer, Dad; you'd appreciate it. It's all made out of wood, and everything in it is wooden, all carved so beautifully! It's almost as pretty as the things you make!"

When Mr. Everett spoke again his voice was tinged with excitement. "Did you say a man named Ben Judson, Kay? Do you know if he ever worked in the East? Many years ago a man by that name worked for me. Good, steady worker. Then, one day, he just disappeared. It was a mystery. Never heard of him—or from him—since then.

"But he was my best man, and if this is by any miracle the same Ben Judson, I could use him in the plant right now. Can you possibly get him so I can talk to him?"

"I sure can, Dad," said Kay delightedly.

She turned the microphone back to Jane and ran across the campgrounds toward Judson's site. She spotted several trailers, but none was his. Carefully she retraced her steps a short way, then walked in widening circles. After ten minutes she gave up.

There was a cold, numb feeling in the pit of her stomach. Then there was a shocking moment when everything suddenly dovetailed: the odd knives, the man's aura of mystery, the ransacking of Solus,



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Flip's bracelet gone, Diana's too-pat theory. Then the sudden suspicion passed, and Kay knew only one inescapable fact.

Ben Judson and his trailer were gone.



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Kay's news dampened whatever enthusiasm the girls had left for their radio conversation. Each of them chatted briefly, Kay made a lame excuse to her father to account for Judson's absence, and the contact was broken off. As soon as the switch was thrown Tim stood up.

"I think it's time we held a council of war," he said. "Too many things are happening at once. What's all this about a Ben Judson?"



The center of attention, Kay stood silently embarrassed.

"I was going to tell you all about him yesterday," she said. "Then we got involved with the bear and it slipped my mind. There isn't much to tell, anyway."

Briefly she recounted her meeting with Ben at the river, described his trailer, and, reluctantly, told of his sudden change of attitude that gave him an air of mystery.

"The rest you know," she ended.

"Well, that doesn't seem to mean much," said Jane.

"I'd say it means a whole lot."

Four pairs of eyes turned toward Diana Lane.

"Just put these items together," she said, holding up one hand and ticking off her statements on her fingers. "First we have a mysterious man who 'coincidentally' parks practically right next to us in this isolated trailer site. Next, he manages to get friendly with one of us to find out who we are and how much we know about him.

"According to Kay, Judson is about the same age, height, and build as the man she saw at the shelter cabin. He has long, strong fingers—thief's fingers. He's handy with a knife. He searches our trailer, finds none of his other loot, so he takes the only really valuable thing we have: Flip's bracelet. And



then he vanishes. It all adds up to one thing: Ben Judson, or whatever his name is, is the jewel robber."

A shocked silence followed Diana's incriminating indictment. Then, "You're just playing police reporter," said Kay.

"Not necessarily," Tim said. "She makes out a strong case. And stranger things have happened."

Kay was surprised to find herself pained at the idea of Ben Judson's being a thief. Now she remembered not the mystery of the man, but his friendliness at the river, the gentle pressure of his strong fingers on hers as she learned to handle the casting rod.

"Diana's jumping to conclusions," she said. "Thousands of men are short and thin and middle-aged and have long fingers. If he were the criminal he'd be crazy to pick on me to talk to, when I'm the one most likely to recognize him. And as for being handy with tools—" she swung around and pointed "—I bet Tim is, too!"

Suddenly she thought of the odd-shaped knives—and choked back the memory of them. Partly because she was pushed into a corner, and partly because she wanted so desperately to believe in Ben Judson, Kay convinced herself, emotionally, of his innocence. Yet in the back of her mind she knew there was just a chance Diana might be right. And she was not going



to give her any more weapons with which to bolster her case.

"Look," said Tim, "you're all getting much too upset. Nothing's really happened except that Kay met some old man she feels required to defend against Diana's logic. And Flip has lost her bracelet. Now, why don't you just tell the Park police about the bracelet? I'm sure it will be found eventually. And in a few days, Kay and Diana, you'll both have forgotten all about Ben Judson."

"Not me," Diana replied promptly.

"Me neither," said Kay. "I still want to find him so he can talk to Dad."

"I'd certainly like to get to the bottom of this," agreed Jane.

"And I've *got* to get that bracelet back," Flip wailed.

"What are you going to do?" asked Tim. "Try to trace Judson?"

"I think that's a fine idea," Flip said.

"But you'll ruin your vacation. Probably Kay and Diana are both wrong; the man may be just a casual wanderer living out a wasted life. The thing to do is notify the authorities and then go on about your trip."

"Just a minute, Tim," Jane said slowly. "We appreciate your help, and your advice. We'll report



the theft all right, but you have no right to order us around, to tell us what to do. Our decisions are none of your affair."

"Oh, aren't they?" Tim's red-headed temper flared. "Who got you out of the sand pit in the first place? You might still be there if it weren't for me."

"I didn't think you'd throw that in our faces so soon," Jane said icily. "We're quite capable of taking care of ourselves from now on, thank you."

She turned away. Tim snorted once, started to speak, then spun on his heel. He took four savage, stamping steps, then whirled back toward the girls. Jane, filled with her false pride, looked him full in the eyes and made not a single gesture. Each waited for the other to give in. Secretly, already regretting the foolish quarrel that grew from their anxiety, each hoped the other would stretch out a forgiving hand. But neither one moved.

Then Tim turned again and walked away. He never looked back. Slowly the girls went into the trailer. Supper was a silent, solemn, unwanted meal. During the after-dinner chores Kay said to Jane:

"You know you're sorry. You know he is, too. Shall I call him?"

Almost viciously Jane snapped back. "No!" she said. "No!"

That night, in the darkened trailer, sleep came



hard. For a long time there was the sound of muffled sobs from Jane's bed.

It was well past noon the next day before Solus pointed westward out of Yellowstone into Idaho. The girls had decided that rather than drive aimlessly in what would probably be a futile search for Judson, they would stick to the main highways and the major cities where their chances of finding such fellow-tourists as Ben, or the thief, would be better. Kay remembered Ben's saying he would probably "head west" a little, and suggested they go to Boise before backtracking in a wide semicircle. And, despite the involvements enmeshing them, all four agreed to try their best to enjoy the trip.

As the road dipped from the high plateau of Yellowstone into the densely wooded Targhee Forest, the girls experienced again the miraculous presto-change-o of western scenery.

Soon even the forest was gone. The land grew barren and was heavily dotted with boulders and crisscrossed by sluggish, yellow streams that vanished and appeared from the earth with mysterious suddenness. Sagebrush fires had left wide swaths black and lifeless.

Kay shuddered. "Ugly," she said.

"It's volcanic," Diana answered. She tapped her



fingers on the guidebook she was reading. "Most of these rocks we've been seeing are great hunks of lava that were thrown through the air and hardened when they cooled."

"I'd like to see some real volcanic craters and things like that," said Flip.

"We could," said Diana tantalizingly.

"You've been planning this all along," Jane complained.

Diana nodded. "Sort of a surprise. We can turn off here," she added, pointing on the road map, "and see the Craters of the Moon."

"The what?"

"Craters of the Moon," Diana repeated. "It's a U.S. National Monument. It has more volcanic features than any area its size in the country—lava tunnels and cinder cones and caves and pools. It looks just like a moon landscape does through a telescope; that's how it got its name."

"Zumpie! What are we waiting for?"

"There's only one drawback," said Jane, studying the map. "We can't possibly get there before dark. That means we'll have to camp out tonight. I just wanted to warn you. We'll be in the middle of what the map calls the Snake River Plains."

"Sounds romantic," said Flip.

"And inevitable," put in Kay.



The road toward the Craters was long, straight, hot, dusty, and isolated. For parched mile after parched mile the car and trailer sped through a haze of heat. Rarely did they pass even so much as a small settlement.

Idly Jane flicked on the short-wave rig, hoping to pick up some conversation to relieve the monotony.

Jane twirled the dial till a voice came out above the static. "Hello CQ. Calling CQ. Calling any amateur phone. This is W<sub>7</sub>GUQ, Boise, Idaho, calling. Calling CQ—"

"Sounds like another YL," Jane said, as the voice droned on.

"Kay," Jane asked, "will you look up W<sub>7</sub>GUQ in the call book and see who it is?"

Kay flipped through the thick book which lists alphabetically the calls, names, and addresses of every amateur in the world.

"W<sub>7</sub>GUQ," she read. "It says 'Elizabeth Fine.'"

"Then it is a girl," said Jane. "I'm always especially glad to talk to YLs."

The voice on the radio said, "—and this is W<sub>7</sub>GUQ standing by for a call. Come in, someone, please."

Jane spoke into her microphone.

"W<sub>7</sub>GUQ, W<sub>7</sub>GUQ in Boise, this is W<sub>4</sub>HZP, mobile 7; this is W<sub>4</sub>HZP, mobile 7, returning."



## KAY EVERETT CALLS CQ

Flip whispered to Kay, "Why does Jane say 'mobile 7'?"

"It means that Jane is operating from a car, so she's 'mobile,'" said Kay, who had been learning her ham lessons well. She pointed to the map. "Idaho's in the seventh call-letter district now. So we're in a 'W7' state."

The voice from the speaker was saying, "I'm so glad to contact you. My name is Betty. I'll pass this right back because I'm curious to know what a W4 is doing in W7-land. No matter why, we're pleased to have you."

"W4HZZ, mobile 7, returning. My name is Jane Carlton, Betty, from Stafford, North Carolina. Three friends of mine are vacationing with me this year in a trailer. I have my rig in the car. Right now we're out on the Snake River Plains."

Jane introduced each of the girls. "I'm going to ask one of them, at least, to tell you about our trip so far," she said into the microphone.

Kay, although she was dying to speak to a new YL, shook her head "no" in a sudden fit of shyness. Diana politely declined, indicating that there was entirely too much fuss being made over amateur radio to suit her. So it was up to Flip, who leaned over from the back seat.

"Hello, Betty. We're having a fine trip, except



that I fell into a herd of sheep, and almost got eaten by a bear, and all sorts of other terrible things, and—well, I don't know what else to say but it's nice to have met you."

With that last breathless rush of words Flip pushed the mike back to Jane as if it were a hot potato.

"I'm afraid Flip is in a bit of a hurry today," Jane laughed. "I guess she had a touch of what hits us all—mike fright. But she'll learn in time that it doesn't bite. It just looks that way."

"You should have heard me in my first QSO," said W7GUQ.

Jane whispered hurriedly, "That means 'contact.'"

The voice from the loudspeaker continued. "I think I said five words among which were 'thanks, hello, good-by.' Then I sat down and laughed and cried for half an hour. I had waited so long for that minute."

"How did you start hamming, Betty?"

"My husband was a ham. We lived in the Montana woods, and I learned there. It was wonderful to be able to sit in that isolation and still talk to people all over the world. I could make friends in China or Siam or England without leaving my fireside. My daughter has her license too, now; we're a real ham family.

"Before I forget, though," Betty said, "are you



coming to Boise? Why don't you, and visit me? We can spend a few days together."

Jane glanced at the girls before answering, silently polling them with a questioning raise of her eyebrows. They nodded.

"We'd be glad to, Betty," she said. "And thanks so much. I'll call you when we get in town. So long for now. This is W<sub>4</sub>HZP, mobile 7, signing off and clear with W<sub>7</sub>GUQ, and leaving the air," Jane intoned, and then switched off the set.

"That was fun," said Kay. "Next time I'll plan what I'm going to say so I won't get tongue-tied."

"Well, I'm glad we contacted Betty. It will make our stay in Boise pleasant. Kay, would you hand me my log from the glove compartment?"

"Another new word," complained Diana. "Do hams ever talk just normal English? YL and QSO and log—is that like a ship's log?"

"All of America's eighty thousand amateurs must keep a record of every contact they make," Jane said. "It's a Federal Communications Commission rule. The log is a convenient way of keeping that record. And the slang? It's colorful and saves time on the air; and though it is based on English it's virtually a world-wide language for hams."

"Why does 'QSO' mean contact?" Flip asked.



"No special reason I know of," said Jane. "But there are a whole list of 'Q' signals. They're all three-letter combinations starting with the letter 'Q' that can mean everything from 'Who's calling me?' to 'Is there any message?' or 'When will I hear from you again?' For instance, QRV means 'I am ready' and QTH means 'My location is . . .'"

"But what good does it all do?"

"Poor Diana," said Kay, "she wants everything to have a purpose."

"Ham radio does have a purpose, and it does lots of good," said Jane stoutly. "It's no toy. In emergencies, when telephone and telegraph wires are broken, amateurs are often the only means of communication. Hams, and girl hams, too, have been heroes of explosions, floods, fires—all sorts of disasters. And hams have provided radio contact for scores of expeditions to the Poles and to Africa."

"But how many girls can be heroines?" asked Diana.

"Not all of us," Jane admitted. "But for every heroine there are hundreds who use their technical knowledge to work in commercial radio, or aviation, or a half-dozen similar fields. And there are thousands more who like ham radio just because it's fun. And there—"



Jane clamped her jaws. "Now that you've got me started I don't know when to shut up," she said.

The girls set up camp that night on the open plains. The moon rose early and cast a brilliant light over the eerie scene. In the distance a cindery tower reminded them that this was lava land. As the sky darkened, scores of jack rabbits began to scurry from their hiding places and run on their meaningless errands under the stars.

"Dinner is on the terrace tonight," announced Kay, as she set up a card table on the volcanic ground.

When the last morsel was eaten Diana rose. "Excuse me," she said, and ran to the trailer. Jane followed her. Flip started chuckling.

"What's going on?" asked Kay.

Then from the trailer came Jane and Diana carrying a small cake burdened with flaming candles. Flip sang—slightly off key—"Happy Birthday to You" as the cake made a formal circle of the table before it was set down in front of an astounded Kay.

"I'd forgotten all about it," she said. "I didn't even keep track of the days. My birthday, and I forgot and you all remembered." Impulsively she embraced each of her friends.

"The cake's probably stale," Jane said. "I had to



buy it when you weren't around. But it's a cake, anyway. And here's something we all thought you'd like."

Eagerly Kay tore the wrappings from a small package. Inside was what looked like a bread board with several gadgets mounted on it. There was a telegraph key and a small buzzer wired together through a series of three flashlight batteries.

"What is it, Jane? I know it's for radio use, but what?"

"Try to figure it out. Recognize any of the parts?"

"Well, these are batteries, and this is a key of some kind—"

Kay tentatively pressed the plastic knob that was joined to a strip of metal. She jumped as a small buzz sounded.

"It's to practice the code with!" she concluded triumphantly.

"And here's something else," said Diana. "Flip and I decided if you really wanted to be a ham we couldn't stop you, so we might as well help you. These handbooks are some of the best guides for a novice, Jane told us."

"You're all so—so wonderful." Kay faltered for words. She felt that this almost forgotten birthday, celebrated by moonlight in this strange volcanic land, was the best she had ever known.



## KAY EVERETT CALLS CQ

"Let's toast some marshmallows," said Flip, scooping up a box of the candies.

"You girls go ahead," said Kay. "I want Jane to show me how to use this."

Jane adjusted Kay's fingers on the key and taught her how to move it with a wrist rather than with a finger pressure.

"Think of the letters in terms of what the dot-and-dash code sounds like, not what it looks like. For instance, don't think of the letter 'A' as 'dot-dash,' but as 'dit-dah,' or 'short-long.' "

Kay nodded. Rapidly Jane clicked through the alphabet.

"Now you try a letter."

Nervously Kay began. "D-i-t, dah," she signaled.

"The other way 'round," said Jane. "Your dot actually sounded longer than the dash. It should be 'dit, d-a-h.' "

Kay tried it again, and this time buzzed a perfect replica of Jane's signal.

"Hey, isn't school out yet?" called Flip, several minutes and a dozen letters later. "Come have a gooey marshmallow."

"In a minute," said Kay. "Jane, how would my name sound in code?"

"It would be dah-dit-dah, dit-dah, dah-dit-dah-dah: K-A-Y."



“How would mine go?” called Flip.

“‘F’ is dit-dit-dah-dit, ‘L’ would be dit-dah-dit-dit, ‘I’ would—”

“Never mind,” Flip laughed. “Next time I’ll ask for it in Abyssinian. It’ll probably be quicker.”



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— • — • — — • — *chapter seven*

Craters of the Moon was a scorching expanse of powdery dust and lava rock. Huge fields of boulders, twisted and fluted from their prehistoric eruption, stretched before the girls. Here and there the scene was spotted with an irregular black cone that groped out of the ground. And emphasizing the desolation were the tiny white lava flowers which dotted some of the older outcroppings.

"All we need is space suits," said Jane. She wiped



perspiration from her forehead and left a streak of dirt across it.

There was no shade, and the occasional puff of air that blew along was like a furnace blast. In many places the ground was no more than pumice stone and crumbled as they walked on it. The quartet struggled up one of the cinder cones, sliding two steps backward for every three they advanced. From the top of the crater wall they looked down into a jagged black pit.

The Craters were not beautiful, yet they inspired a sensation of awe. For here volcanoes had spouted and lava had flowed.

The girls straggled aimlessly down one of the dusty, circling paths. At its end was a sign, pointing out across a lava field: "Ice cave—200 yards."

"Let's explore," begged Flip. "It'll be cool there, anyway."

Caves where underground rivers have turned to ice, and where a coating of ice sheathes the rock walls, are geologic freaks often encountered in volcanic areas. A series of steps cut in lava formations led down to the cave mouth. Gingerly the girls descended. As they drew closer to the entrance the air grew noticeably cooler. The sudden change started them shivering.

A rickety board spanned the gap between the last



lava step and the cave itself. As the overhang of the ledge cut off the sun a penetrating chill went through them all. Slowly their eyes grew accustomed to the darkness.

All around were rock walls in whose crevices great chunks of ice had formed. At their feet was a narrow sluice of water, its surface frozen over. Everything was rough and cold to the touch.

"This is terrific!" Flip, ahead of the group, was crawling through a narrow opening off to one side of the cave. Beyond it she could see a bigger "room" and other passageways opening from its walls.

Jane had hardly started to say, "Be careful—" when Flip slipped through the cleft and was at once lost to sight in the darkness beyond.

"Flip! Flip!" called Jane, her voice a little strained.

"Flip! Oh, Flip!" Kay yelled. And an echo reached her ears—"Flip! Oh, Flip!"—in a strange wail.

"She couldn't be lost this fast," said Jane.

"She couldn't, eh?" Diana grunted. "She's giving a good imitation."

"We were dumb to come down here without a flashlight," said Kay. Actually she was thinking, Flip has had so many narrow escapes, how long can it be before something really does happen?

And Kay was afraid to let herself think what was



in her heart: that a person could be lost forever in a cave like this. She felt a clammy fear clutch her.

Tall Jane and pudgy Diana both tried the narrow opening without success.

"I can do it," Kay said, eying the space.

"Watch where you're going and keep calling back to us," Jane cautioned. "I don't know if I should let you try it or not."

"Well, it's got to be done—" Kay started sidling into the crevice. The footing was treacherous and she slipped once on the stones. A clatter of dislodged pebbles echoed in the cavern.

"I'm okay," Kay called out. Then, "Flip! Oh, Flip!" Nothing but her echo answered.

Slowly Kay groped her way forward, hands outstretched.

Her right hand touched something soft and damp. She jumped back sharply, striking her shoulder hard against the opposite wall.

Kay rubbed her shoulder, then gingerly put out her hand again. The stone felt strange next to the softness. This time she felt the texture more carefully. It was a patch of rock moss. Probing the rock, she found it broke away sharply and formed a doorway to another black and inky room.

"Flip!" Kay yelled, sticking her head in the opening. There was only a muffled roar to greet her



ears. She hesitated for a moment, then quickly moved into the space, and, twisting and turning, was soon fifty feet into its darkness. She kept calling, feeling the walls and stumbling along.

The path seemed to be a maze, and every now and then Kay caught a glimpse of another opening leading out from it. "I think I'd better start back before I get lost myself," Kay muttered.

She wandered back along the path, found the spot where she had veered sharply to the right, and then the place where she had climbed around that boulder.

It must be about here, she thought. No, a little farther maybe. She felt her way carefully, then saw a series of white stones lined up along the ebony wall.

Kay stood absolutely still for a moment. Those stones weren't there before. Could someone have put them there, or—or could she possibly be lost?

Her heart froze. Again she began to call. "Flip—Flip!" There was a new note of urgency that came back in the echo.

She whirled around. Perhaps that stone was the landmark she was hunting. It turned out to be a section of the wall that jutted into the corridor.

For an instant Kay gave way to blank despair, but almost as quickly regained command of herself.



"If I sit still I'll freeze to death," she said aloud, the sound of her own voice a comfort in the darkness, "and if I start racing through the passages without a plan I'll certainly be lost."

Slowly, and with great deliberation, Kay moved down the cave, trying to remember the turns she had taken. But every boulder looked like every other boulder, or else each one resembled half a dozen different things depending on the angle from which Kay viewed it. Finally she leaned exhausted against the wall. Slowly she let herself sink to the damp ground.

Was it her imagination, or did she hear a rustling noise? She stood up abruptly, fear overcoming her fatigue. There it was again, louder. Kay shrank against the wall and held her breath. Around the curve came a stream of white light, and behind it a small, worried face under wildly twisted blond hair.

"Flip!" Kay screamed. "Oh, Flip, thank heavens I found you!"

Flip jumped and almost dropped her flashlight. Recovering, she hugged Kay tightly for a second, then pushed her away.

"Who found who? You're the one who's lost this time!"

"But I was looking for you. You disappeared into that opening, and we called and called, and—"



## KAY EVERETT CALLS CQ

"I just went down one little passageway," said Flip. "Then I figured I'd probably get lost and you'd all be mad at me so I turned around and came right back. By the time I did, Jane and Diana were screaming for you. Diana ran back to the car and got this flashlight, and I came after you. I could hear your footsteps."

"Do you know how to get out of here now?"

"Of course, silly. Diana also brought back a ball of radio wire from Jane's kit. I just let it unravel behind me. Now we wind it up and follow it out."

The wire threaded the labyrinth without a snag. In the light of the flash Kay saw the original opening, and through it the faces of Jane and Diana.

"What a twist," said Diana, after she and Jane helped the other two girls into the light of the now welcome warmth of the sun. "Flip getting somebody out of trouble!"

In Betty Fine's back yard in Boise, Kay Everett meditatively sucked lemonade through a soda straw. The half-written letter in front of her shimmered in the heat waves that danced down from the burning sun.

Kay remembered approaching the city down the long series of S-curves that marked U.S. Highway 30. Each turn in the road had revealed a new aspect of



the city, but the best view was the one straight down the long main street to the gold-tipped dome of the State Capitol, beyond it to the fertile fields of the valley, and then up the flanks of the dun-colored hills that cupped the land.

"Let's drive straight to Betty's house," Jane had said. "She'll probably know the most convenient place for us to park Solus."

According to Betty, the most convenient place was Betty's back yard.

"I won't hear of you looking for trailer space when I've got a whole empty lot here," the auburn-haired, friendly YL had said. "It's not as if you'll be making any work for me."

Idly Kay glanced down at what she had written:

"So, Mom and Dad, here we are, comfortable as ducks on a pond. While I scribble this, Diana is catching up on her charts and maps and diary, and Jane and Flip are just being flatly lazy and sprawling on the grass. This is certainly an example of that ham hospitality Jane keeps mentioning. I think all of us are convinced by now that it actually exists. By the way, I'm learning ham radio fast. I know code well enough now to send about four words a minute, which Jane says is good considering the short time I've been practicing."

Kay stopped to think of all the news she was not



mentioning—news that would uselessly upset all their parents in Stafford. For she and Jane had spent many weary hours visiting near-by auto and trailer courts in a vain search for Ben Judson. Meanwhile, Diana had triumphantly spotted another news story. It reported a jewel robbery in a Utah city; said police were convinced it was the work of the same man who had committed other jewel thefts in the region. And Kay realized her faith in Ben Judson was slowly wearing thin; her conscience troubled her for withholding what she knew about his odd-shaped knives.

Meanwhile Flip worried constantly and loudly about her bracelet, and Jane worried constantly and silently about Tim Rhodes. Twice Kay had watched her start letters to him—and then suddenly rip them down the middle and toss the pieces away. No one could talk to Jane about him. It was a subject she absolutely refused to discuss.

The slam of a screen door interrupted Kay's grim train of thought. Betty Fine stood there, a pitcher of lemonade in one hand and a white jersey blouse in the other.

"Ice cold," she invited. There was a rush for refills.

"What are the letters on your jersey?" asked Flip.

"Call letters," smiled Betty. "Lots of girls embroider them on blouses, or sweaters, even on bed-



spreads. I'm getting this shirt ready for the hamfest tomorrow. You're all coming, aren't you?"

"Couldn't keep me away," said Jane. "And I'd like the girls to see a hamfest."

"What is it?" asked Kay.

"It's a sort of a combination field day, picnic, and shop-talk session for hams from all over the area," Betty answered. "The Boise hamfest draws folks from all over the state, and even from neighboring states. People drive hundreds of miles to attend. Everybody renews old friendships, and lots of us meet in person for the first time dozens of folks we've been talking to for years."

"There are games and food and contests and prizes and—well, never a dull moment," Jane added.

"If you're a ham," said Diana.

"Anything to eat?" asked Flip.

"Usually," laughed Betty.

"Then we'll go," Flip declared.

Betty slowed down her car as the pavement ended and the rutted, rock-studded dirt road began. It angled sharply upward into the foothills, bouncing the girls in their seats.

"Where in the world is this hamfest?" shrilled Flip, as one wheel looped out over the edge of the road on a hairpin turn.



Betty was grinning but watching the road carefully. "If you think this is bad you should come up here when it rains. People have been stuck for days. We're heading for Sunset Park, at the top of the Boise Mountains. It's fine for a view—and a beautiful place for a party like this."

Behind the car a small dust storm had been raised by their wheels. Flip, lighter than the others, was being bounced up and down.

"Zumpie! I'll never forget this hamfest!" she exclaimed.

They were all sneezing from the dust as the rolls of it curled around them. But gradually the road began to level off, and the car turned into a wooded grove.

"You Easterners," teased Betty, as the girls breathed relieved sighs. "Why, that's one of our safest roads."

Kay was surprised to see how many people were gathered beneath the trees. Mostly they stood in knots, chatting. Several looked up and waved as Betty drove in. A rotund man sauntered over.

"Betty Fine, isn't it? Haven't talked to you since that night we both contacted Asia. What a time that was! I drove down from Idaho Falls just to see the gang."



As Betty began introductions, other hams strolled by.

"Are you W<sub>7</sub>GUQ?" asked a red-faced youth. "Remember working Ray in Pocatello last week?"

Betty nodded.

"I'm Ray," said he.

The two of them shook hands and began talking like long-lost friends.

Kay stood back and watched. She was amazed at the fondness with which these people greeted one another. It made no difference if they had never met, if they were decades apart in age or separated geographically by hundreds of miles. They were brother hams, and they understood one another.

She was more than ever determined to join their group.

As more cars jounced over the ridge of the road and disgorged their occupants into the thick of the hamfest, the buzz of activity increased. Groups of hams gathered beneath every tree and on each picnic bench, discussing such technicalities as the relative values of vertical and horizontal antennas on ultra-high frequencies, or whether a crystal or a variable frequency oscillator gives a better signal.

Suddenly a loud-speaker hung in the trees blared: "Calling for entrants in the field events. Calling for entrants in the field events."



"How about you two getting in the three-legged race?" Jane said to Flip and Kay. "All you have to do is carry a glass radio tube in a tablespoon safely across the finish line."

One of the hams tied Flip's left leg to Kay's right one and handed them a spoon in which a rolling tube was precariously cradled. As a handkerchief fell to start the race, five sets of three legs began hopping.

At first the two girls had trouble co-ordinating their movements, but gradually they found a pace suited to both of them. They closed in on the other teams.

"Look at them go," said Diana. "They may win yet."

But even as she said the words Flip stumbled, shrieked, and wildly waved the spoon. The tube rolled crazily, teetered on the lip, wobbled back and forth as the girls grabbed each other's wrists to steady them.

Their gyrations so unnerved the other teams that two of them, turning to watch, lost their balance and fell. Another dropped its radio tube, and the fourth was taken with such a fit of laughter that, having recovered their balance, Kay and Flip hopped ahead, crossed the finish line and tumbled headfirst on the ground.



Flip danced with excitement while she was being untied.

"We won! We won!"

"Yes, but what did we win?" asked Kay.

The judge handed Flip a large package. She accepted it casually, then almost fell over with the weight of it. Kay helped her set the bulky object on the ground, and together they unwrapped it. They saw a large, black metal box with wires sticking out of one end.

"A radio?" said Flip.

"Maybe it's a new kind of waffle iron," said someone from the side lines, and the assembled hams laughed heartily.

"It's a transformer, girls," one of them volunteered. "It's largely made up of two coils which are coupled together so that energy may be—"

"Save your breath," interrupted Jane, coming up. "Save your breath. Those two don't know a word you're talking about, and at least one of them will never care."

"What'll we do with this thing?" asked Flip plaintively. She eyed the object as if she were afraid someone was expecting her to lift it again.

"Since it's valuable equipment," suggested Kay, "let's give it to Betty as a token of our appreciation."

"That's fine with me," said Flip. "Now all we have



KAY EVERETT CALLS CQ

to do is get it to the car. Maybe if we all tried to lift it . . ."

"Can I help?"

The girls looked up at the sound of the cool, pleasant voice. They saw an attractive young girl, her hair bound with a bandanna, and a smile so genuine as to set them all at ease.

"You're Jane Carlton, W<sub>4</sub>HZP, aren't you?" she asked.

"Why, yes," said Jane, somewhat hesitantly. "I'm sorry, but—have we met before? I must admit I don't recognize—"

"I'm W<sub>3</sub>VYU," the girl said.

"I should have known your voice!" Jane exclaimed. "But it sounds so different on the air. It's Terry McLaughlin! How did you get way out here?"

"Flew," said the girl.

"That's right," Jane recalled. "You have a private pilot's license, don't you?"

The girl nodded. "And a small plane with a short-wave receiver and transmitter in it for hamming. Put that together with a two weeks' vacation and it adds up to me, here. But let's get this transformer in your car. Then we can talk."

During the moving operation Jane told Kay, Flip, and Diana about Terry's background. She had received her amateur radio operator's license at the



age of fourteen, making her one of the youngest YLs on record. Quick at the technical side of radio, Terry became interested in electrical engineering and was the first girl to win a degree in that field from Carnegie Institute of Technology.

"Lately," said Jane, "Terry's been working on radar and supersonics for a major aviation company. And to complete the success story of a girl ham, she was recommended for the Hiram Maxim Memorial Award. Maxim was one of radio's pioneers, and the prize was set up in his memory for the most promising ham under twenty-one."

"Don't believe a word she's saying," laughed Terry.

"Do you have any plans for the rest of your trip?" Jane asked. "Maybe we can join forces while we're all in Boise."

"There is one big project on my list," admitted the girl. "Ever hear of the Idaho Primitive Area?"

The girls from Stafford looked at one another blankly.

"Wait a minute," said Diana. "I'm not sure, but I can make a guess. There's an awfully large blank space on the map of the state. If anything is going to be primitive, it's probably in there."

"You've got a little genius here," said Terry. "The gal's right. The Primitive Area is a tremendous ex-



panse of wilderness in the central part of Idaho. It's about as big as several New England states combined. No roads except for a few emergency trails. Nothing but mountains and forests, wild animals, a few ghost towns, and—they say—a handful of real, honest-to-goodness hermits."

"I didn't know any place like that still existed," said Kay.

"Me neither, till a few weeks ago," Terry replied. "And now that I'm this close I'm going to fly in and see what it's like."

"Isn't it dangerous?" asked Jane. "All those mountains?"

"It's not the best flying territory," Terry agreed. "But the weather reports look good for the next couple of days, and I've been studying maps of the area. Yesterday I got a lesson in mountain flying from one of the best back-country pilots in these parts."

Terry McLaughlin hesitated a moment, then said:

"I'd love to have you all make the flight with me, but my plane is only a three-seater. And I should remind you, it may be dangerous."

"Zumpie!" said Flip. "I'd give anything to—" She stopped and looked around. "No, maybe I'd better not get involved. Anything I do these days seems to be jinxed."



"As long as you don't try to fly the plane," said Jane, "I don't think you need worry on that score. But how are we going to decide who goes and who stays?"

"You can count me out," said Diana. "I get ill when I just think about flying. And over mountains—ugh!" She made such a wry face that she looked half-sick already.

"Why not take Kay and Flip?" Jane suggested. "They've never been up before."

"But what about you, Jane?" Kay said.

"I'll take the trip by radio."

The others looked mystified.

"Remember Terry said she had a rig in her plane? Well, I'll stay in Boise, keep in touch with her by radio from the car, and know everything that's going on!"

"When can we start?" said Flip, jumping in her eagerness.

"The sooner the better," said Terry. "How about tomorrow morning?"



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The small, light plane taxied out of a hangar on a Boise airfield. In the pale morning light it looked fragile as a butterfly's wing, an utterly unthinkable vehicle for a flight into the rock-ribbed fastnesses of the interior wilderness. And Terry, as she hovered around the mechanics making their last-minute check, looked thin and frail.

Kay and Flip braced themselves against the early morning wind that whipped at their kerchiefs and



buffeted itself against their leather jackets. Then—

“Climb in!” yelled Terry.

A grinning mechanic helped them make the great step from ground to fuselage and made sure they were properly belted in their seats for the take-off. Terry clambered past them into the nose of the ship.

Expertly she surveyed the dials. At a signal from her, a mechanic moved forward and gripped the edge of the propeller. He leaned on it and pulled. The report, sudden and loud as the motor caught, startled Kay. Terry turned around and smiled.

“You’ll feel better once we’re airborne,” she said.

Slowly the motor warmed and the ship was jockeyed into position on the runway. Then there was the long run down the field. Kay held her breath against what she was sure would be the sudden upsurge of flight. But there was nothing. One moment the wheels were touching ground. The next they were spinning idly in the air—she could see them turning underneath the wings—and she was flying.

As they circled to gain altitude the city spread out below them. Kay looked about with a new interest. The compact little city looked like a diagram on a road map. Streets ran in unbroken lines save for one square where the green of a park and the glitter of the gold Capitol dome served as a perfect landmark.

Steadily the plane climbed, and the sun, which un-



til now had been hidden behind the horizon, came into full view as they rose to meet it. The roar of the motor settled into a steady, comforting drone. Once or twice Terry looked back and waved, but Kay and Flip were raptly pressing their faces against the windows.

At first there were only brown hills, soft and curvy, as formless and wrinkled by canyons as the hide of a great old elephant. But these gradually reached higher, shook off their softness, and changed into rocky, forbidding peaks. Terry gestured toward one of the dials in front of her.

Kay leaned over and saw the altimeter reading: 10,000 feet. Almost two miles up. And even at this height Kay and Flip could see nothing in any direction but the upflung bony ridges of snow-topped mountains, granite whitecaps in an ocean of sky.

Terry pointed in various directions and shouted names above the roar of the motor. "The Sawtooths!" she yelled, gesturing down to her right. Then she pointed far toward the west and north: "The Seven Devils, Bitterroots, Big Horns!"

Kay found the ranges as spectacular as their names. They soared up behind one another to the farthestmost edges of sight, a solid, impenetrable belt.

Now and again the plane flew over glacial lakes, cupped in hidden hollows of the peaks. These were



the uncounted lost lakes, icy blue and swarming with fish. Some of them had never yet been reached by man. The shadow of the plane as it skimmed along was perhaps the first intrusion of civilization that had ever disturbed those tranquil, aloof waters.

In a great semicircle Terry swung the plane around, headed it due north, and gradually the character of the country changed. The outcroppings of rock gave way to forested peaks that were no less mighty for their greenery. Looking down, Kay saw a great blur of wilderness, virtual jungle, America's last real frontier. The thick forests were uncut save now and again by a river chasm.

"It—it's like a lost world," Kay thought aloud.

The plane veered close to a mountaintop, and Terry wordlessly pointed at something she saw in the trees below.

Kay and Flip craned but could see nothing through the thick blanket of trees. They looked at Terry questioningly. Suddenly the plane swooped down and sideways in a sharp turn. Kay was thrown against the side of the cabin and grabbed hastily at the dangling ends of the unbuckled safety belt. Terry held the plane in a closed circle, then leveled off. As it glided around the mountain for the second time she again pointed, and this time the girls picked out the object of Terry's attention—a large blur of



white that stood on an outcropping of rock at the very edge of the peak.

"Bighorn sheep," Terry shouted. "They're rare."

Kay nodded, still groggy from the sudden turn. The first thrill of flight was beginning to wear off, and in its place came a feeling of unease. Kay's stomach began to adopt a series of motions all its own, and a dull ache throbbed in her head. She looked across the narrow aisle at Flip, and saw that the usually tireless, exuberant girl was undergoing the same symptoms.

The drone of the engine became a pounding in Kay's ears, and the gyrations of the light plane increased. Weakly she leaned forward and tapped Terry on the shoulder. The girl pilot realized in a glance that airsickness had Kay and Flip on the verge of a knockout.

"Hang on!" she shouted. "There's a landing field near here. We'll go down."

Another five endless minutes passed before Terry sighted the rocky, bumpy pasture which was typical of the Forest Service emergency fields in the area. Like most of the others, it was short, narrow, and ringed with tall trees.

Three times she circled, trying to come in low enough so that she would not overshoot the field, and at the same time attempting to stay high enough



to avoid crashing into the treetops. On the fourth approach Terry cautiously pushed the nose of the plane down. There was an ominous cracking as the right wing brushed branches. Then the wheels touched, bounced, touched again, rocked over the uneven ground, slowed, and came to a reluctant halt at the very edge of the landing strip.

Kay and Flip staggered out of the cabin and collapsed on the solid earth. They hardly noticed that they had landed in what appeared to be the middle of nowhere. When her insides stopped whirling, Kay opened her eyes and stood up. Terry was checking the damaged wing. Fortunately there was only a small rip in the fabric.

"Zumpie!" said Flip, getting up. "Where is everyone?"

Terry laughed. "You two feeling okay now?"

The girls swallowed, experimentally rubbed their stomachs, and nodded.

"But it was awful while it lasted," said Flip.

"What happened?" asked Kay. "It was so sudden. I was feeling fine till we saw that bighorn sheep. Then everything caved in."

"I don't know if you'll believe me," said Terry, "but it wasn't all my fault. Maybe I shouldn't have made that turn so tight. But mostly you felt sick because it was getting along toward noon. As the sun



gets warmer, heat fills the hundreds of canyons in this area. Hot air rises, you know, and every time we crossed a canyon the plane got lifted by a rising current. Then as we flew out of the canyon area the plane fell. Then we hit another canyon and started going up again."

"Like a roller coaster," said Kay.

"Something like it," Terry agreed.

The clearing was a tiny oasis in the midst of thick forest. The towering trees thinned at the edges of the field, but as Kay and Flip tried to see beyond them, the primitive wilderness closed in. After the roar of the plane motor the quiet was paradoxically deafening. It was such a thick quiet that the cry of an occasional bird and the sougling of the warm breeze seemed only to intensify the silence.

"Look! Forest fire!" Kay and Terry, startled out of their contemplation of Mother Nature, followed Flip's pointing finger. From the woods several hundred yards away there came a slow spiral of smoke, lazily curling upward.

"I doubt it," said Terry. "There should be a ranger station near here, and that's probably it."

"But the ranger wouldn't need a fire on a warm day like this," Kay protested.

"Maybe he's cooking lunch," said Terry.



"Zumpie!" Flip tenderly felt her stomach. "We forgot all about lunch."

"I thought food was about the last thing you wanted, the way you were acting a few minutes ago."

"My stomach and I always let bygones be bygones," Flip answered airily.

"There just might be a few sandwiches in the plane," Terry said, walking to the ship and reaching inside.

She returned with a bag full of wax-paper-wrapped triangles and a large Thermos.

"There'll be no girl castaways starving in the wilderness on this trip," she said.

"Where shall we eat?" asked Kay.

"Let's take the food over to the ranger station," said Flip.

The trio trudged to the edge of the clearing and found a vague path that led through the woods to the smoke spiral. Sunlight filtered through the high branches and made a filigree pattern on the pine-needled forest floor. Then there was another, smaller open space, and in its center the neat, white frame cabin of the district ranger. A tall, capable-looking man stood on the front steps.

"Howdy!" he called. "Saw that plane come down; I've been waitin' for you."



"We thought you were a forest fire," said Flip, after the girls introduced themselves.

"You mean that?" The man jerked a thumb toward the smoke floating out of a stovepipe that protruded from the roof. "That's the cookstove. I've got some stew on the fire. There's enough for all of us. Will you have some?"

"Thanks just the same," said Terry, "but we brought our own." She held up the package and Thermos. "But we'd enjoy eating with you."

The ranger led the way into his cabin, and a few minutes later—with one of the sandwiches having been exchanged for a sample of stew—all four were hungrily eating. Kay realized suddenly how friendly, how unquestioningly hospitable, were these people of the back country. And she realized, too, how easily, how naturally she met them, talked with them, ate with them.

Here she was, Kay thought, calmly enjoying lunch with a man she had not known ten minutes before—and the whole thing in a setting so far removed from ordinary civilization that it might have been on another planet. Her old shyness, her old unease in new situations, was vanishing like melting snow. She knew that imperceptibly but surely she was passing another of the milestones on the road to adulthood.

"Speaking of smoke," the ranger was saying, "this



has been a terrible season for forest fires. It's been hotter than usual, and we haven't had any rain for weeks. All the wood and the brush dries out, and first thing you know—poof!—you get some heat lightning and then the whole shootin' match goes up."

The ranger looked worriedly out the window.

"It wouldn't take much to set this whole place off like a furnace."

"But you've got lookout stations and fire fighters," Terry said. "Can't they keep blazes controlled?"

"Trouble is," the man answered, "you get a little fire up in the mountains, some place it may take days or even a week to reach. By the time you get there it's a big fire, out of control. Of course," he added, "smokejumpers have been a help."

"Smokejumpers?" The girls echoed the word simultaneously.

"Daredevils, they are," said the ranger admiringly. "Say a report comes in that there's a small fire up along Acorn Ridge. That's about twenty miles from an airfield, twice as much from a trail. Used to take a man three days to get near it, by foot or horse.

"Nowadays you call jumper headquarters, and these boys fly up to Acorn Ridge and parachute down onto it, equipment and all. They get there in



about an hour, when it's still nothing but a bonfire, and kill it before it gets started."

"Zumpie!" said Flip. "That sounds exciting. I'd like to see a smokejumper in action."

"Well, I sure hope you don't get a chance to, young lady," the ranger said.

He rose and carried his plate to the sink. "Anything special on your program today?"

"No," said Terry. "I thought we'd stay on the ground until later in the afternoon, when the sun will be cooler. Heat currents bounced us around a bit this morning. Is there anything to see in the neighborhood?"

"Just about as much as anywhere else in the Primitive Area," the ranger said. "There's Blowout Creek back in the woods a way, though. You could explore a little bit."

"Are there any gold mines around here?" Flip asked.

"Used to be lots of 'em. As a matter of fact, there still is a lot of gold dust and second-rate ore. Not worth much. Say," he added, struck with inspiration, "you girls might enjoy doing a little panning. Won't get anything to speak of, but it's a pleasant way to pass the time."

The ranger rummaged in a store bin and brought out two round, shallow pans, resembling frying pans



without handles. He showed the girls how to collect a small amount of water in the pan and then, with a gentle circular motion of the wrist, to sluice it about so that a little of the water splashed out at each turn. Finally only the sediment was left.

"If anything in it sparkles, that's a fleck of gold," he concluded.

Blowout Creek was a pebbly stream that meandered through the forest. While Terry relaxed on the grass in the sun, Kay and Flip rolled up their dungarees, waded into the creek, and began panning for gold. When the novelty wore off, panning became laborious, backbreaking, knee-cracking work. Bits of mineral, a glint of sun on a sliver of pebble—all looked like gold flecks.

"No gold," sighed Flip, sinking down on the grass next to Terry. "I give up."

"Me too." Kay groaned as she straightened up.

Now the three of them stretched out in the sun. The long day, the strain of the flight, the peaceful quiet of the wilderness—all combined to make the relaxation delightfully complete. They closed their eyes.

When Terry opened hers the sun was no longer warm. Hastily she glanced at her watch.

"Five!" she gasped. "Kay, Flip, wake up!"

"Wh—what happened?"



"Like a bunch of dumb bunnies, we all fell asleep, that's what happened. Look at the time! I wanted to be out of the mountain area by twilight."

"I hope Jane won't be worried," said Flip.

"Jane!" Terry gasped again. "We have a short-wave schedule at five. If I don't answer she'll think we've been killed or something. Let's get back to the plane."

Rapidly they walked back to the ranger station, returned the gold pans, and said their good-bys. They trotted single file down the path to the field. Kay and Flip strapped themselves in their seats, and Terry quickly flipped the propeller. She waited impatiently while the engine warmed. Finally she opened the throttle. The plane taxied down to the edge of the field. Almost viciously, Terry swung it around and sent it roaring back the way it had come, trying to get up enough speed to leave the ground.

The trees at the end of the meadow rushed at her, looming larger each split second. Then the nose of the ship tilted, lifted; the wheels came off the ground. The plane climbed steeply, turned half sideways, and cleared the trees with only feet to spare.

Terry sighed with relief. She circled the field once. Kay and Flip, looking down, saw the ranger waving. Then he was swallowed by the forest. The plane settled into a steady drive southeast, and Terry



turned to the short-wave rig. As she tuned in, Jane's worried voice assaulted her eardrums through the headset she wore.

"—W<sub>3</sub>VYU, W<sub>3</sub>VYU, this is W<sub>4</sub>HZP, mobile 7, calling. Where are you, Terry? Why don't you answer? Come in, please. Come in, please."

As soon as Jane finished, Terry sent her own call into the air.

"W<sub>4</sub>HZP, this is W<sub>3</sub>VYU, aeronautical mobile, over the Primitive Area of Idaho. This is Terry, Jane. Don't worry. We're all right. Did you hear me? Everything's okay."

Instantly Terry heard Jane's relieved voice. "Oh, I'm so glad. I began to think all kinds of terrible things. Why didn't you come in on schedule?"

While Terry recounted the story of their day, the girls watched the mountains flow by beneath them. The sunset that Kay thought would be so beautiful from the air was a disappointment. Heavy clouds scudding across the sky blotted out most of the light, and the sinking sun could barely be seen reflected in them. One or two distant peaks were outlined in a glow. But that was all.

Kay glanced downward as the plane recrossed the long, snakelike gash in the earth that was the gorge of the Main Salmon River—known to adventurers on its treacherous waters as the River of No Return.



Idly she looked off toward the horizon and was about to settle back for a cat nap when the telltale spiral caught her eye. She sat bolt upright and focused. Against the overcast it was barely noticeable. From anywhere but an airplane it would be virtually invisible. But from that height, looking down on the wild country, it was unmistakably smoke.

Like a panic, thoughts of what the ranger had said flashed through her mind: "It wouldn't take much to set this whole place off like a furnace . . . the little fires, up in the mountains, they're the troublemakers."

Kay tried to keep one eye on the smoke while she attracted Terry's attention. Wordlessly she pointed to the spiral. Terry peered into the gathering dusk.

"Fire!" Kay yelled above the motor roar.

Then Terry, too, saw the danger signal; and then Flip. All three of them couldn't be wrong. For a moment they sat stunned, not knowing what to do. Flip innocently gave the clue.

"I wish," she said, "we were smokejumpers."

"That's what we need," cried Kay. "But how can we get them here in time?"

But Terry had already turned to the microphone.

"Jane, listen carefully: this is important. We just spotted a smoke spiral coming out of the forest



slightly north of the Main Salmon River. Weather haze is heavy and I don't know if any fire lookout will be able to see it.

"Call Boise Forest Service headquarters at once and give them the report. I can't locate the fire accurately because I don't know the names of any of the landmarks, but I'll give you the co-ordinates of my position. Tell them it's a job for smokejumpers."

Terry reeled off a series of numbers, then repeated them.

"Did you get that?" She listened, then said, "Good. I'll wait right here for you."

The minutes ticked by slowly as Terry kept the plane circling close to the puff of smoke. The column was thicker now, or else it merely seemed so in the growing darkness. Terry stiffened into concentration as Jane's voice echoed in her ears.

"W<sub>3</sub>VYU, W<sub>3</sub>VYU, this is W<sub>4</sub>HZP, mobile 7, calling. The Forest Service is sending a plane with a pair of smokejumpers. They'll head for your position, so stay where you are. If they can't spot the fire they will indicate by flying a tight circle. In that case you are supposed to fly head on toward the smoke. Stay on this frequency and keep in touch with me. I'm holding open a telephone wire to the Forest Service headquarters."

Terry relayed the message to the girls. "There's



KAY EVERETT CALLS CQ

nothing to do now but sit and wait," she ended.

Kay noticed her checking the various dials on the flight panel. "Anything wrong?"

Terry shook her head. "No. Gas is getting a little low, that's all."

Kay hesitated before asking the obvious.

"Do we have enough?" she said finally.

"If they show up soon, we do."

Ceaselessly now the small, light plane floated in a wide circle over the area. It was almost like being rocked in a small boat on a gentle swell of ocean. The drone of the engine, the dim sky, the numbing unreality of the situation combined to cause a sort of hypnotic drowsiness.

Twice Kay, trying to focus on the column of smoke, found herself on the verge of falling asleep. Flip sat so that her head, if it nodded, would bang against the window and wake her. Tension stretched slow minutes, so that it seemed hours before a black speck spotted the sky to the south. Rapidly it grew, became a bird, then a plane. Lumbering slowly, it signaled with a waggle of its wings. Then it did a tight circle and flew off to one side, waiting for guidance.

Terry aimed her propeller at the plume of smoke, now almost invisible even to Kay and Flip. Slowly Terry navigated the ship until its nose was lined up



on the target, then drove ahead. The other plane tailed her, suddenly broke away. Another flutter of its wings as it passed said, in the language of the airman, many things: "We've found it. Thanks. Well done!"

Terry cruised toward the blaze, staying a respectable distance from the smokejumper plane. Twice the larger ship made observation runs across the fire. In the darkness, which was now upon them, the smoke had given way to a red glow. Now and then a spark shot up through the black like a meteor fragment. Spitting embers traced red lines through the treetops. An evening wind freshened, adding its vagaries to the already present dangers.

The big ship came over the fire a third time—and something dropped from its doorway. An instant later a white cloud billowed, then a second. Two parachutes opened, steadied, swayed slowly earthward. The smokejumpers dangling in the harness were two black blobs against a dull red cloud of smoke. Gradually they dwindled into the forest.

A moment later the plane jettisoned other parachutes with bulky packages hanging from them: fire-fighting equipment—climbers, crosscut saws, axes, shovels, a first-aid kit, even a portable short-wave radio, heavily quilted against the impact of landing. Then the ship headed back toward Terry's plane



## KAY EVERETT CALLS CQ

and waggled its wings a third time. Terry spoke into the microphone.

"They're down, Jane. Two smokejumpers plus equipment. Their plane is leaving, and so are we. Will you drive to the airport and pick us up? We're going to be sleepy and hungry. See you in about an hour."

After the radio contact was broken Terry hunched herself over the controls. She looked back once and smiled reassuringly at Kay and Flip.

"Got more than you bargained for on this excursion, eh?"

Flip smiled through her tiredness.

"Wouldn't have missed it for anything," said Kay.

"Good girls," said Terry. "Can you grit your teeth a little longer? We're almost there."

"What about the gas?" asked Kay.

"I think we'll make it."

Again the drone of the engine pounded in Kay's ears and throbbed in her temples, and again the queasiness of flight struck the pit of her stomach. She looked at Terry, busy maneuvering the small plane through the darkness and the mountains, navigating by instrument now; and at Flip, who had fallen fast asleep in her seat. The stars were coming out, icy blue and white and close—only a wing's length away. Kay set herself the task of counting



them. She was only up to six hundred and forty-five when she heard Terry say:

"We're coming in, girls. Buckle your safety belts."

Flip stirred, blinked, sat up. Kay stopped counting. Both of them looked down on the lights of the city. Swiftly they passed over the main sections and headed for the outskirts. There was a blotch of darkness, and then the brighter, steadier lights of the airport.

The plane headed upwind, dropped, landed smoothly on the long runway. Terry cut the motor, and the wheels stopped rolling. Mechanics rushed to lift the girls to the ground. There was the blessed feeling of steady earth beneath their feet again, and then Jane, running to them and throwing her arms about them.

"You're heroines, all of you!" she said.

"Kay spotted it," said Terry. "It's just lucky we had a short-wave schedule planned."

"Luck, nothing! We're all proud of you."

"Am I a heroine too?" asked Flip.

"Of course you are," said Jane.

"Then I want something to eat. I'm starving!"



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“Snow!”

Flip Adams sat upright in the back seat of the car. The girls were driving down a straight-as-a-die highway. They had put almost two days' travel between themselves and Boise, swinging south out of Idaho into the immense Nevada rangeland. Now Solus was moving eastward into Utah on the first lap of the homeward trek. The quartet had grown used to the stunning wonders of the West. But with heat



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waves shimmering in a cloudless sky, snow was just too much of a wonder.

"Snow? In this heat?" Diana scoffed.

"I think the sun's got Flip," said Kay. "It does look white, though."

Jane steered the car and trailer to the road shoulder and stopped. Flip was halfway out the door when Diana said:

"Better put on your overshoes."

Flip, with one scathing backward glance, trotted onto the "snow." She bent down and picked up a handful. It was hot and dry and crumbled to flakes in her hand. Tentatively she licked a finger with the tip of her tongue, and screwed her elfin face into a grimace.

"It's salty."

"Of course it's salty," said Diana triumphantly.

"It's salt."

"What's salt doing out here?"

"This is the Great Salt Lake Desert—the bed of an ancient inland sea." Diana scooped up a double handful of the salt and poured it into a container. "To experiment with when I get home," she explained.

Kay tried some of the salt herself. It was coarser than any she had ever seen. But there was enough of it, she thought, to fill all the shakers in North



Carolina. It was an ocean of salt. And, riding along again beside the dazzling, limitless expanse, the illusion of water was even more complete. Under the bright sun the salt beds shimmered and undulated, looking for all the world like an endless sea.

After a while the gleam of the salt desert pained the eyes. Jane casually turned on her short-wave receiver and tuned in on a conversation between a ham in Texas and another in Iowa. Though only Kay had been interested enough to study amateur radio, Flip and Diana had picked up some of the terms. They smiled as they heard the Texan say "so long" to "the only kind of ham who can't be cured."

"Where did the word 'ham' come from anyway?" asked Diana, her thirst for learning overcoming her disinterest in radio.

"There are half a dozen different explanations," said Jane. "One is that novice telegraph operators in the old days were kiddingly called 'hams' by the experienced workers. Another is more involved. British sportswriters, according to this theory, called any amateur an 'am.' Cockneys pronounced this 'ham,' and soon the word came to refer to a nonprofessional in any field."

"How did amateur radio itself begin?" Kay asked.

"It's an exciting story," said Jane. She settled her-



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self more comfortably behind the steering wheel.  
“You all laughed at Diana just now when she took  
salt to experiment with at home, but ham radio  
started pretty much the same way.

“When radio was a new discovery—around 1900—  
hundreds of fascinated youngsters fooled around  
with coils and wire and bits of metal and assorted  
pieces of junk, and everybody thought they were  
crazy. But one by one they invented some new  
device, or improved an old one, to carry radio a step  
farther along in its progress.

“First they worked separately, but in 1909 five  
young boys formed the Junior Wireless Club, the  
first ham organization. That same year hundreds of  
amateurs banded into the Wireless Association of  
America, went on the air, and began contacting one  
another with their elementary sets. They were called  
‘spark-gap’ sets in those days.

“Soon there were thousands of amateurs on the  
air. Some of their stations were so powerful they  
interfered with commercial broadcasting stations.  
The big outfits fought to have hamming abolished,  
but every such measure proposed in Congress was  
beaten down. Finally a law was passed restricting  
hams solely to the short radio waves. At that time  
those wave lengths were considered useless except  
for very small distances.”



## KAY EVERETT CALLS CQ

Kay interrupted indignantly, "That was a mean trick."

Jane laughed. "Don't worry, there's a happy ending. Hams took up the challenge. They experimented with that supposedly worthless section of radio waves and learned to use it.

"They invented equipment that would span with short waves thousands of miles of space. With that victory hams forced the world to accept them."

"What kind of standing does a ham have today?" asked Diana.

"He's greatly respected now," said Jane. "Commercial concerns, the Army and Navy, the Federal Communications Commission—they all encourage ham radio because hams are still the most daring experimenters.

"During the war there were thousands of hams in research labs, in the Army's Signal Corps, and the Navy's Bureau of Ships. They were radiomen on ships and planes and in civil defense networks. YLs were much in demand, too. They staffed radio divisions in the WAVES and WACS; and most of the delicate assembly work in radio-equipment manufacturing plants was done entirely by girls."

"What about after the war?"

"Well, Kay," Jane replied, "you'll find girl hams working today as engineers for radio stations, as



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government technicians, as researchers for private industry, as radio control operators for airlines—in fact, everywhere that ham experience is considered invaluable. There's a whole new field of career opportunities open to girls who know radio."

"Nobody can tell me that's a mirage." Flip pointed to a great body of water that had replaced the desert as scenery while Jane had been talking.

"No, but it's still salty," said Diana. "That's the Great Salt Lake—or what's left of the prehistoric sea I mentioned."

"Can we swim in it?"

"After a fashion," said Jane. "It's so salty that it buoys you above the surface. You can float, but that's all. We're only a few miles from Salt Lake City now, though. Let's get in and settle down; then we can make our plans."

The city was a sprawling one, wide and flat with broad, long streets. At almost every corner drinking fountains spouted cold water pumped from streams in the near-by mountains. Passers-by were genial. Many of them smiled and nodded and drawled a friendly "Good morning" as the girls waited in the car at street corners for the traffic lights to change.

The first trailer camp Jane tried was already filled, but the second had space available. Jane parked



Solus and left camp-making in the care of the others as she went to register. She drew several traveler's checks from a pocket of her wallet.

"Would you cash these for me, please?"

Jane stuffed the bills in her wallet, jammed it in the pocket of her jacket, and walked back toward the trailer. It was not till half an hour later, when Diana asked for some money to replenish the food kitty, that Jane discovered her wallet was missing.

"But I just had it," she said. "I had it when I paid our rent here, then I put it in my pocket. It must have fallen out somewhere."

But a thorough search of Solus, and the ground around it, turned up no trace of the wallet. Worriedly—for the wallet held most of their money, Jane's driving license, and other important papers—she reported her loss to the trailer-court office.

The man reached under the counter.

"This yours?" he asked, holding it out to her. Jane nodded, relieved, and saw that it was still filled with bills. Not one had been taken. "Some tourist turned it in a while back," the man continued.

"Who? I'd like to thank him."

"He's in that trailer." The man pointed, and Jane gasped as she thought she recognized, from Kay's description, the unique trailer of Ben Judson. She



started running toward Solus, filled with the good news. Then she slowed her pace.

"Good news?" she asked herself. "It might easily be bad, if Diana's suspicions are right. But—he turned back my wallet."

Kay was overjoyed when she confirmed Jane's theory that the trailer was Judson's. "That proves he's not the jewel thief," she said triumphantly. "No criminal would have returned a wallet with all that money in it."

"Well, let's talk to him," said Jane cautiously.

"Is it safe?" asked Diana.

Jane hesitated. "Well, nothing much can happen here, with all these people around. And we've certainly hunted for Judson long enough. Are we going to quit, now that we've found him?"

Kay led the four of them to the door of Judson's trailer. She knocked. Steps echoed inside, then the door swung open. The questioning look on Judson's face turned to surprise; then, for an instant, dismay flickered over it; and, finally, a grizzled grin of pleasure.

"I guess I owe you an explanation for running away, Kay," he said, after the first greetings were exchanged.

"You certainly do," Diana put in meaningfully.



"I don't know what got into me," Judson said. "I don't know why I left you then—and I don't know why I'm telling you about it now." He hesitated. The taut lines in his face deepened, then relaxed. "I've carried it around inside myself so long—too long. It was bound to come out sometime. And you, Kay, you're the logical one to hear it."

"Me?"

Ben nodded. "The reason I left Yellowstone that night goes back many years. I'd been working in the East, for your father, Kay. Doing fine, too. Then my wife became sick, and the doctor said to take her West, it would do her good. I couldn't tell Mr. Everett. He was generous, and I knew he'd want to help. And me—I was too foolishly proud, I guess. I didn't want his help. I felt it would be like charity.

"So, one night, I just left town, bag and baggage. Just walked out, without a word. Your dad tried to find me, Kay, but he never did." Judson smiled briefly. "You're a better detective than he was."

Kay winced at the word "detective." She shot a quick, warning glance at Diana, then turned back to Ben. "What happened then?"

"Well, my wife died soon after we got out here. I was lost, lonely lost, for months. No energy, no ambition, no desires. I guess I got in the habit of not



having any of those feelings. I lost interest in my work. Finally, as a sort of hobby, I built this trailer and started traveling around in it. Now and then I'd anchor some place, get some kind of job and earn enough money to keep me going a while longer."

Ben stopped talking, and there was silence in the trailer. He took a deep breath. "That's about all," he said. "Now you know."

"But why did you run away from me?" asked Kay.

"You were the daughter of the man I'd walked out on. I couldn't tell you this story then—and couldn't not tell you, either. So I did all over again to you what I did to your father: I walked out.

"Remember when your friend called 'Kay Everett' when she had trouble with a bear?" said Ben, nodding toward Flip. "Then everything added up. You look like your dad, too, you know. And I just wanted to get away from there before you found out about me."

"That's fascinating," said Diana, a glint in her eyes. Kay realized that even Ben's story hadn't changed her mind. "You know what we thought you were doing?"

Hastily Kay interrupted with some foolish question. No purpose, she knew, could be served by telling Ben of their suspicions. If he were guilty, he



would be warned. If he were not, he would be deeply hurt.

But Diana was not to be denied.

"You haven't seen a silver bracelet Flip lost, have you?"

"Bracelet?" Judson was puzzled. "No. Why?"

"Oh, I just thought since you found Jane's wallet so luckily, you might have come across the bracelet, too."

Again Kay cut in. "Never mind the bracelet now. I've got some good news for you, Ben. Dad wants you to go back to Stafford, to work for him." As Ben started to protest, Kay raised her voice to smother his. "It's not charity, or anything like it. Dad really needs you. He's not doing you any favors. With the work you can do, it's more the other way 'round."

Ben argued for a moment, but his heart was not in it. It was clear that he was tired of wandering, of running away from himself.

"All right, I'll write to your dad," he agreed. "If he's got a spot for me, I'll go back."

"Promise?" asked Kay.

With a smile the man nodded. "It's what I've really wanted for a long time," he said. Then, solemnly, he added, "Thank you, Kay."

On the way back to their own trailer Kay said to Diana:



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"Are you convinced now?"

Diana shrugged. "It's a good story. Maybe it's true, maybe not. There's still a lot of things need explaining."

"That girl," Flip muttered under her breath, "is a real bloodhound."

Next morning the girls walked to the hub of Salt Lake City. This was Temple Square, center of activity for the Mormons, who founded the city and made it blossom in the parched wilderness. The magnificent Mormon Temple and Tabernacle, the colorful gardens, and the history-packed museum were major tourist attractions.

Just inside the main gate was a sign: "Register Here for Guided Tour." Following the arrow, the girls entered a small building. Flip wandered to the desk and began to write her name in the thick register. She glanced over the page to see where the other visitors were from. A Georgia address a few lines from the top caught her eye.

"Jane," she called, "come here and look at this."

The older girl peered over Flip's shoulder and followed her pointing finger. She gasped, and a flush of color rushed to her face.

"What is it?" chorused Kay and Diana.



"Tim Rhodes is here," grinned Flip. "He registered just a little while ago."

She showed them the firm, bold signature.

"Let's try to find him," said Kay.

"Don't be silly."

The girls looked at Jane. Her lips were pressed tightly together, and her body was stiff. "I said, don't be silly," she repeated. "There's no reason to look for him."

But while they toured the grounds the girls noticed that Jane spent as much time glancing at the crowds of people as she did over the high lights of the Square itself: the blooming red and yellow tulip beds; the famed Tabernacle with its metal dome; the unique statue to a sea gull that marks the time those birds killed billions of locusts that were destroying the first crops of the early Mormon settlers.

Once Jane thought she saw a redheaded young man in the distance. She started, almost automatically, to hurry toward him. Then she forced herself to stop and walk casually back. Within her own heart she did not know whether she really believed the man was not Tim or whether her false pride still ruled her better judgment. For Ben Judson's story had struck home in more ways than one: Jane saw there the living proof that "pride goeth before a



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fall"; she saw how stiff-necked pride, fed on egotistic conceit, could ruin a life.

Suddenly her mixed-up emotions squirmed all at once within her. There was a trembling in her mind and a shuddering in her stomach. To end the conflict, Jane "ran away," too, in a different sense. She called the girls to her.

"Let's enjoy ourselves," she said, almost too excitedly. "Let's go places and do things." And she threw herself into the tiring activity that brings forgetfulness and temporary peace of mind.

The next days were jam-packed with adventure. The girls floated in the Great Salt Lake as if on some gigantic rubber raft, trying vainly to hold an arm or leg beneath the almost rubbery surface. They climbed through fields of yellow daisies in the Wasatch Mountains, and ate tremendous lunches in wind-swept valleys from which they could overlook the sweep of the range. And they threaded their way through the underground maze of Timpanogos Cave, a fantastic labyrinth in the heart of a mountain.

The latter expedition was a real test for Kay. "No more caves for me," she had said when Diana first suggested the venture. She remembered all too vividly her experience at Craters of the Moon.



"But this is different," Diana had answered. "This cave has guides and electric lights and footpaths. Nothing could possibly happen."

Diana was wrong.

They had been winding their way behind the guide through the slippery passages, exclaiming over the weird and breath-taking shapes into which the centuries had sculptured the rocks, when it happened.

"We're going to turn off the lights," the guide had said, "to give you an idea of what darkness is like in the middle of a mountain."

He pressed a switch and the bulbs flickered out, leaving the girls in a blackness so thick that ink or ebony was blazing white by comparison. Kay held her hand an inch before her eyes—and saw nothing.

From out of the nothingness came the guide's voice. "Now we'll put the lights back on." There was the "click" of the switch, but the darkness remained. The click was heard a few more times. Then the guide's voice again.

"Seems to be something wrong with the electricity," he said. "Must have blown a fuse. But there's no reason to get panicky. They'll be on in a minute or so. Meanwhile, I have a flashlight."

The memory of the other cave came flooding back into Kay's memory when Jane's voice said, "At least



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you're not lost this time, Kay. And you have plenty of company."

The words forced away Kay's fear. "I'm all right," she said.

Then there came a thump and a tinkle, followed by a smothered exclamation.

"That does it!" said the guide. "Dropped my flashlight. We'll just have to stand pat till the lights come back on."

There was a heavy silence. Then sounds filtered out of the pitch blackness: the slow, steady dripping of water, the trickle of an underground stream, the breathing of the other people. Then there came a new noise—a scratching, a padding from somewhere in the large room of rock, and a faint but mournful cry that raised goose pimples on Kay's flesh.

She remembered the guide's story of how the cave had been discovered by a hunter who followed a bear into its recesses; and she recalled his saying that some animals used it as a refuge.

The low whine rose again. Kay's bones turned to stone, her heart wore a coat of ice. Then, as suddenly as they had blacked out, the lights flashed on again. Kay blinked and looked around rapidly. She watched the guide retrieve and test his flashlight. The fall had not harmed it, for a small circle of stronger light gleamed on the floor of the cave. And



outlined in that circle was the cause of the eerie cries—a tiny, shivering tiger kitten that cried miserably as it shook in the damp cold. Kay went over and picked up the animal, cradling it in her arms.

The guide scratched his head. "That's one of the caretaker's kittens, I guess," he said. "Must have wandered in when nobody was at the entrance."

Kay had wrapped the puffy ball of fur in her scarf and held it in her jacket pocket as the group picked its way hastily out of the cave. The caretaker met them at the exit.

"Sorry about the short circuit, folks. Hope you weren't too nervous."

Kay felt the kitten stirring in her pocket and she surreptitiously stuck her hand in to scratch its ears. She hated to give it up, but—

"I think this is yours," she said, holding out the little animal. "He scared us more than anything else, crying in the darkness."

The caretaker took the kitten. "Say, I wondered where he'd got to. Looks kind of peaked, don't he?"

He placed the kitten on the ground. It humped itself, squatted, fluffed out its fur, then tottered straight toward Kay and began to play with her shoelace ends.

Diana sympathetically watched the expression on



Kay's face. She walked over to the caretaker. "Could we buy the kitten?"

The man grinned. "How much did you have in mind?"

Diana fumbled through her pockets. "Well, I have only fifty-six cents with me, but I can get more from my purse in the car and—"

"Tell you what," the man cut in, "I'll sell him to you for the odd six cents. And if your friend will carry him down the trail herself, you can have him for nothing."

As the girls started down the path, with Kay delightedly carrying her new friend, the man called after them:

"So long, Elmer. I'll tell your ma you've got a fine new home."

"Elmer," sniffed Flip. "I don't think that's such a wonderful name for a cat."

"Let's call him CQ," suggested Kay. "That's a call to anyone listening—and that's certainly what he was doing in the cave."

With CQ an intriguing newcomer to the group, the days in Salt Lake City passed quickly. On their last night in town Jane, as a result of urging by local hams, was scheduled to speak to the Salt Lake radio amateurs' club. Kay went with her.



The club meeting was not at all like the hamfest in Boise. It was more like a session of the Stafford Knitting Club. There were about twenty persons in the room, and they knew one another well. The chatter was all about radio, but Kay could understand much of it now. She was pleased that this new language was beginning to be her language, too. It was short and crisp, and she liked the professional sound of it.

Kay was introduced to a girl about her own age.

"Carol just got her license last week," said another ham. "She's been so excited about it she can hardly talk."

"That's right," said Carol. "It's the biggest thrill of my life. I've already applied for membership in the YLRL."

"The Young Ladies' Radio League," Jane explained to Kay. "It's an international club for girl hams, and there are local units in many cities."

"Can I join it?" asked Kay.

"As soon as you're licensed."

Jane told her briefly about the other ham organizations and activities. She mentioned the American Radio Relay League, the biggest ham association in the world, to which any amateur, male or female, can belong. The ARRL represents American hams at international radio conventions, tests new equip-



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ment, trains novices by broadcasting code practice, helps to organize local ham clubs, even sponsors dozens of contests in such things as contacting foreign stations, handling messages, or trying to work at least one amateur in every state or continent.

Kay eyed the girl called Carol with a mixture of admiration and envy. She wished she had already passed her test. She straightened her slim body determinedly. Well, soon, she thought.

"Hello."

The friendly, familiar voice came from behind Kay and Jane. They whirled.

"Tim!"

The impudent grin on the freckled face was tempered with a touch of shame, of bashfulness. Then the grin vanished. Tim's voice was serious.

"I heard you were coming here tonight. I couldn't leave town without seeing you, Jane. I've been a fool. I'm sorry."

"Oh, Tim!" All Jane's pretenses dropped away. Suddenly she felt lighter, cleaner than she had for weeks. "It was both our faults," she said. "I'm glad we found out in time."

He gripped her hand. Each realized now how truly ridiculous their quarrel had been. But, secretly, each was a little glad they had argued. For only through separation had they come to know how



deep and sincere was their feeling for each other.

"We found Ben Judson, Tim," said Kay. She told him about the incident of the wallet, and of Ben's story.

"We've so much to talk about," said Tim eagerly.

"Not now, though," said Jane. "Meeting's about to start. Let's be polite guests."

Later, when Jane rose to address the club, Kay again felt the surge of determination to be a ham. For Jane spoke about the ham heroines, the girls who used amateur radio as a powerful weapon in emergencies.

She heard, for instance, about Verna St. Louis, KL7AX of Alaska, who saved scores of people from drowning in a tidal wave. Her radio call had brought two airplanes to an isolated seacoast village to evacuate the population.

And there was Dorothy Hall, W2IXY, who made history when she contacted Pitcairn Island, in the middle of the Pacific Ocean. The men and women there, descendants of the seamen who mutinied on the British ship *Bounty*, were dangerously short of food and medicine. When Dorothy found that diplomatic red tape would hold up the delivery of these supplies for weeks, she spoke by radio to a ship in the Pacific, persuaded it to change its course and to carry emergency rations to the island.



Kay thrilled to the story of an anonymous girl ham who organized rescue efforts when a ship exploded in a remote Newfoundland harbor; and to the story of W<sub>2</sub>HXQ, Kay Kibling, who for a week provided the short-wave contact so necessary during the successful search for a child lost on a New England mountainside.

Jane also told about Letha Allendorf, W<sub>9</sub>OUD, a Missouri YL, who broke off a contact with an African station during a long-distance contest in order to pitch in on emergency work during a Mississippi flood; and about Mildred Wildman, W<sub>8</sub>PZA, who operated steadily for hours to handle relief messages in a Cleveland tank-explosion disaster.

"That was a wonderful speech, Jane," Tim said when the meeting was formally adjourned.

Jane smiled. "Thanks. Now that we have so much to talk about, we'll see you tomorrow?" she asked.

Tim grimaced. "No," he said. "I'm terribly sorry, but I have to leave in the morning. I promised a friend in Estes Park I'd stop off to visit him before I headed home. That's just on the other side of the Rockies, you know, at the eastern entrance to Rocky Mountain National Park. And if I want to be back in time for the start of classes, I'll have to be moving. But I'll see you at college, won't I?"

Jane nodded. Her voice, despite its assumed



brightness, was tinged with disappointment. "Of course, Tim. It will be fun."

"Fun? It'll be wonderful, Jane!"

Tim impulsively caught her hands in his. He opened his mouth but no words came. Finally he grinned, dropped her hands, turned and walked out the door. Jane watched him go. He turned once, and waved, and she waved back. Suddenly she knew that the beginning of the school year couldn't come too soon.

"I enjoyed your talk, Jane," Kay said later as they were driving back to their trailer camp. "It's inspiring when you know what a girl and a radio can do."

Jane thanked her. Then she laughed.

"There was one story I forgot to tell. A few years ago two girl hams set a record by talking to each other on the short waves for fifteen consecutive hours. That's what I call real heroism!"



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Kay wedged herself into a corner of the car to steady her arm as she wrote. Occasionally she raised her head to look at the Rockies. They were the last western mountains she would see; for once through the main range there would be the drop to Denver with only the flat Midwestern plains ahead.

"We make our last stopover in Rocky Mountain National Park tonight," Kay wrote. "From there



we'll be heading straight back to Stafford, and much as I miss you all I hate to think of this glorious summer ending.

"I'm glad Ben Judson is back with you and doing such a good job in the shop. Tell him we're looking forward to fishing lessons at the creek. Jane thanks you for asking about her. Although she's done all the driving, and most of the hard work on this trip, she seems to have thrived on it. She had a checkup recently, and the doctor told her there was no reason she couldn't go back to college; which means she and Tim—"

"Hurry up and finish that letter." Flip nudged Kay impatiently. "You're missing the most wonderful sights."

The peaks were clustering now, and—as did every mountain and river and canyon and waterfall—they had a character entirely their own. This was no somber, icy range like the Tetons; no gentle one like the Wasatch near Salt Lake City; no terrifying one like the Sawtooth in Idaho. The Rockies seemed to Kay like a great, playful dog—big, strong, massive, but with an air that said, "Come on and play, let's have fun!"

The girls craned their necks as the road angled up the western slope of the Front Range. As they



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cleared the entrance station to the National Park the ranger had a word of warning.

"You're going to do some climbing," he said. "This is the Trail Ridge Road you're on now—it goes right along the crest of the range and crosses the Continental Divide."

"Remember the first time we came to the Divide?" Kay asked the others. "We said we'd be seeing it again."

"There's snow on the higher parts of the road," the ranger continued. "Snowplows are keeping it open, but be careful. At least you won't find much traffic."

The highway swung steadily north for a few miles, then began to curve and climb. The forest thickened. Firs, pine, and spruce crowded to the edge of the road, and streams flooded with melting snow tumbled down the sides of hills and vanished into gullies.

Literally scores of mountains reared in a huge circle. Some of them dropped away in sheer precipices to gorges a half-mile below, where rivers like silver threads stitched their way through fields of colorful alpine flowers. Suddenly the snow was no longer on the peaks but right alongside Solus on the road. At first it was only a thin coating on the pavement. But soon it piled in great drifts along the



KAY EVERETT CALLS CQ

sides. As the road continued upward the drifts joined into an unbroken snow wall that towered above the car. Jane stopped at a turnout.

"Imagine, snow in August!"

"Sure it's not salt again?" teased Diana.

Jane scooped up a handful and patted it into solidity. "See what you think," she said, and hurled it.

Diana ducked. The snowball, sailing over her head, splattered Flip. An instant later all four girls were crouched behind snow-draped trees, and a furious snow-fight was under way. Diana's accuracy eventually won the crown of victory—a snow wreath enthusiastically jammed on her head.

Thoroughly damp and winded, they got back in the car and turned on the heater. Kay wrapped little CQ in the woolen scarf which had become his personal property, and Flip took a last snapshot of Solus against the snow wall, planning to call the picture: "Summer in the Rockies."

The angle of ascent steepened. As Jane maneuvered around the sharp, slippery turns, she was grateful for the absence of traffic. The trees were thinning out, and there were now more mountaintops and cloud banks below the road level than there were above. One more patch of stunted trees was passed, and then there was an unbroken expanse of



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rock and snow. The air was thin, and a cold wind hurled the snowflakes.

"Timber line," said Jane.

The bare moonlike land vanished as the road started to slant downward. Soon the trees poked out of the snow again, and ten minutes later the snow itself was gone, replaced by dry brush, soft soil, crackly pine cones. The frosted windshield streaked as it dried, and Jane stopped at another turnout to wipe it off.

A car was parked there, obviously in trouble. One tire was flat. The driver, a man, was pawing through the trunk of the car in a frantic search for tools.

"Need any help?" Jane called.

The man looked up. He was breathing heavily from his strenuous exertions in the rarefied mountain air, and there was something desperate about his clumsy, hasty movements. Yet his voice, when he spoke, was rough.

"No. Just a flat. I'll handle it."

Jane wiped the windshield, stuffed the rag back in the glove compartment, and watched the man struggling to adjust a jack underneath the bumper of his car. Twice the jack slipped, and the second time the man scraped his knuckles on the bumper's edge. He muttered a curse.

"Sure we can't help?" asked Jane again.



"I told you no," was the reply.

The man stopped to wipe his bleeding hand with a handkerchief. For a moment he turned away. When he swung back, his eyes opened wide with astonishment. For Flip, eager to be of service, had rushed over to lend her aid whether it was wanted or not. She was tugging at the cover of a tool box. Suddenly she staggered back, the cover in her hand. For an instant she gaped, stupefied. Instead of tire irons and wrenches, the box held a glittering array of jewels. Flip was dazzled, but not enough to lose sight of one thing: lying on top of a carelessly curled pearl necklace was her bracelet. Its distinctive design of dancing girls was unmistakable in the bright sun. With a yell, she grabbed it.

Kay swung around at the cry. She saw Flip, open-mouthed, holding the bracelet; and the man, momentarily paralyzed, staring at the open tool box. Then, smoothly, all the pieces clicked together. The man was the same one she had burst in upon at the shelter cabin, so many weeks ago. Face to face with him again, in almost the same circumstances, she was positive of the identification. And the tool box was the object he had been going to bury there.

There was no longer any question. Here was the jewel thief sought all over the West. Here he was,



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with his loot, and a stolen car, well on his way to escape across the Rockies.

Kay started to speak when the man moved. Dropping the jack, he took two quick steps toward Flip, shoved her to the ground and grabbed the tool box in one sweeping motion. As Flip fell, the bracelet dropped from her hand back into the box. The next instant the man was into the woods bordering the road. Trees swallowed him, and only the sound of breaking branches and crackling underbrush marked his disappearing trail.

Flip bounced back to her feet. "The jewel thief!" she cried. "And he's got my bracelet again!"

The girls huddled indecisively for ten agonizing seconds. Then—

"I'm going after him to see where he's heading," said Jane. "Flag down the first car that passes and get help."

And before the startled girls could say a word or move to stop her, Jane flung herself into the forest and faded from sight.

"What'll we do?" asked Flip, shivering.

"Do what Jane said," replied Diana.

"Jane can't possibly follow him far," added Kay, sounding far more certain than she felt. "She'll be back in a minute."

Jane ran through the woods. It seemed easy to



follow the man's trail and she soon found herself deep in the forest. His shoes left imprints in the soft earth, and his careless haste smashed bushes and cracked thin branches.

Twice Jane slipped and fell to the ground. More and more often she was forced to lean against a tree trunk to catch her breath. The asthma had left its mark. She gulped great draughts of air to satisfy the demands of her pounding heart.

Once she lost the trail and grew frantic as she wasted minutes trying to find it. She plunged into another grove. In the trampled underbrush she spotted the footprints again. Jane ran faster now. She had her second wind, and the new ease of breathing gave her confidence.

Several times Jane stubbed her toes on jutting rocks or scratched her arms and face on whiplike branches. When she tripped and fell headlong to the ground, cutting her knee, she sat rubbing the wound. Exhaustion sobered her recklessness.

"What can I do even if I find him?" she thought. But she resolutely pulled herself up and went on.

She stopped in a small clearing to rest for a moment. Suddenly a figure sprang out from behind one of the circling trees. Her quarry was facing her.

"Get away! Get away!" His words were more snarled than spoken.



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Almost automatically, Jane reached down to grasp a solid length of tree limb she spied half-buried beneath a pile of pine cones. The hard strength of it gave her courage.

Jane walked toward the man steadily, gripping the stick. Her heart was so noisy she was sure he heard it thumping. Yet she was the hunter, and he the hunted.

In a weird fencing match they stalked each other around the clearing. Jane was no match for the man in strength, but her agile mind out-thought him time after time. Then he crouched and dashed forward under her guard. Jane lashed out with the tree limb, but missed. Before she could recover, the man snatched upward and grabbed her arm. The wiry grip of his steely fingers crushed painfully in the flesh above her elbow. She tried to pull free, to beat him with her free hand, but the man was oblivious to her blows.

He twisted her right arm until she lost control of her fingers. The stick fell to the ground. The man dived for it. Jane, caught off balance, stumbled. The man struck her flat on the face with his fist. She fell backward, hitting her head a glancing blow on a tree trunk. She lost consciousness.

The man leaned heavily on his makeshift club. He gasped for breath. No sound came from him,



though his lips worked furiously. When his breathing eased he walked to the edge of the clearing and picked up the tool box. He looked about him. In the wilderness of the high Rockies, he knew, he could not hope to survive for long; and if he ventured into civilization, the warning would be out. They would be waiting for him.

His mind raced to solve the dilemma. There was one chance: to throw the pursuers off the trail, to divert their attention and their energy, to cover his tracks with a feint. Then, if he moved quickly, he could slip through their lines to safety. But it would have to be a magnificent feint.

Jane began to stir. The man went into action. He gathered twigs, dry branches and pine cones, piled them next to a mound of dead logs. He took a match from his pocket, struck it on the sole of his shoe, and set the flame to the wood. With a slight hiss, it caught fire.

"This will keep them busy long enough," he said. Then he turned to Jane. "Got to keep you out of action for a while, too." Suddenly he brought the tree limb down viciously on Jane's right ankle. The stab of agony that flashed through the girl's body aroused her. As her eyes opened, the man, tool box of loot clutched in his hands, struck off again into the forest.



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Jane sniffed. Smoke! With an effort she focused her eyes, saw the small fire growing in one corner of the clearing. A breeze whipped it higher. She tried to stand, but pain flooded her in great waves. Her last sight, before she blacked out again, was one of flames steadily growing larger and fiercer and more uncontrollable—and eating their way across the forest floor closer to her helpless body.



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— • — • — — • — *chapter eleven*

When Jane failed to return, the girls waiting on the highway grew restless at their inactivity. They shouted into the woods but got no reply save for the furious twittering of birds. Not a car passed them.

"Let's go for help," Flip said. "There must be a ranger station at the end of the road."

"It's miles away," Diana pointed out. "It would take hours. We'd be better off scattering in the forest and looking for Jane."



Kay reluctantly agreed. She wanted to obey Jane's instructions, yet she was at the point where helpless waiting was unbearable.

"But one of us should stay here in case a car comes," said Flip.

There was an embarrassed silence. Nobody wanted to give an order, yet some organization, some leadership was needed.

Kay took the bit in her teeth.

"Flip, you act as lookout. Diana and I will go."

The girl opened her mouth to protest. Then she shut it without a word. Flip wanted desperately to be one of the searchers, but she also realized the logic of Kay's plan.

"Good luck," she said. "And be careful."

Once in the woods Diana and Kay separated. Kay watched the other girl stride firmly down a path and gradually merge into the shadows. Then she struck out in another direction. At first the hushed quiet, the piny aroma and the soft leaves underfoot took Kay back to the games she'd played as a child.

She remembered how, during an "Indian fight," Flip had roped her to a tree and then gone home to lunch, forgetting about her "captive." It had been Jane Carlton, taking a short cut, who'd heard Kay's cries and freed her. But this, Kay thought grimly, was no game.



She moved faster, her eyes alert for any sign of Jane's presence. She circled a fallen tree trunk, ducked a series of low-hanging branches, and spotted a telltale footprint in the ground. Now Kay in her turn picked up the trail of tangled underbrush. She followed it a few score yards, hurdling a shallow stream, then stopped and sniffed the air. The fresh tang was gone; in its place was an acrid, choking odor.

Kay automatically took a deep breath, then doubled over in a fit of coughing. Her eyes began to run. She thrashed her way through a nest of branches, broke out into a clearing. Smoke spiraled from a burning mound. Flames licked outward toward grass and brush. Kay whirled at a weak cry.

"Jane!" she cried. "Jane!"

Jane was half leaning against the tree at whose base she had fallen. Her face was dead white, her clothes streaked and torn, her hands filthy from dragging herself along the ground. Her ankle was already swollen and discolored.

Kay rushed to her and gave her a quick, tight hug. Jane forced a smile.

"You've got to get out of here," Kay said. "The fire—"

Jane shook her head. "Can't move." She pointed to her ankle.



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“You must!”

Kay slipped her hands under Jane's armpits. Bracing her legs wide apart she struggled to lift the older girl. Jane's body rose a few inches from the ground. She screamed with pain as her ankle twisted. Then Jane's head dropped and her body became a dead weight again, dragging itself down.

The fire was spreading along the ground and into the air. Kay began to feel the glow of heat on her face. Desperately she bent to her task. Forcing her hands under Jane's arms and locking her fingers around the girl's chest, Kay dug her heels in the ground and pulled. Jane's body moved a few feet. Kay heaved twice more and dragged her human burden to the edge of the small clearing.

She stopped to wipe away the sweat that streaked her face and dribbled into her eyes. Nearly drained of strength, she forced herself to start the laborious process anew. Yard by yard she towed Jane Carlton through the forest.

Kay stopped to rub her aching arms. It was impossible, she knew, to go on much farther; alone, she could not possibly carry Jane to safety before the flames overtook both of them. Nor was there time to go back and get help.

The memory of the childhood Indian game popped back into her mind. She remembered how



the "pioneers" used to surround themselves with "water" for protection against "fire raids."

Kay shook her head to clear it. Hadn't she crossed a stream a few minutes ago? Or was that, too, a memory, an imagining? No, she was sure she had jumped across running water. Shallow water, and narrow, but water just the same. If she could get Jane to the creek she would be safe for a while.

Again Kay tugged Jane's body and inched backward. She no longer knew anything but bending and pulling and straightening, bending and pulling and straightening, time after agonizing time. Then something cold and wet sloshed over her feet. Kay plodded through the water, dragging Jane across its rocky bottom until her head rested on the far bank and her legs lay half in, half out of the brook.

Kay slumped for a moment against a tree, trying to order her whirling thoughts. She breathed deeply, flooding her aching body with oxygen. She put her hand to her forehead and took it away wet and sticky with blood from a deep scratch. Her hands were bruised.

Yet there were still reserves of strength within her. The stream would provide only temporary protection. Kay turned to the next step. She ran lightly through the woods, almost by instinct moving in the



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right direction. When she burst out on the highway, Flip and Diana gasped.

"Kay!"

There was a babble of questions, but Kay waved them into silence. Rapidly she outlined what had happened and pointed through the trees at the path she had just taken. The dirty pall of smoke she saw rising from the treetops spurred her haste.

"You two go in and get Jane," she said. "Together you should be able to carry her out."

"But you're cut and hurt," said Diana. "We can't leave you here like this."

"Jane's the one who is in danger," Kay said. "I'll be all right. But hurry!"

Alone, Kay fell numbly on the seat of the car. Her head throbbed and her throat was raw from smoke; her skin was torn in a dozen places. She shut her eyes in an effort to concentrate.

The girls would reach Jane in time; she would not let herself think otherwise about that. But the fire was spreading unchecked. Someone must notify a ranger. But how? There were no passing cars to carry a message. And with Jane's ankle injured no one could drive her car.

Time—time was of the essence. "Smokejumpers get 'em small," the ranger had said. "They douse



## KAY EVERETT CALLS CQ

the bonfire before it has a chance to grow." But this bonfire was growing—fast.

Kay opened her eyes. She thought of the ham heroines Jane had talked about. Those girls would know what to do. They'd be on the air and have help on the way in a matter of minutes.

"On the air."

Kay repeated the three words to herself. Abruptly she knew exactly what to do. She had watched Jane often enough to know what each switch on the rig was for, to know how to tune the transmitter, to turn the dials to bring in answering signals.

She hesitantly reached a hand toward the rig—then pulled it back. How often had Jane warned her of the penalty for operating without a license? If she went on the air now it would mean the end of her dreams. For no violator of amateur radio's basic law could ever win a ham license. If she went on the air illegitimately, she would be barred from it forever.

"What good will it do anyway?" she asked herself. Probably she would never raise a station. Probably she would only blow out a tube and wreck the set along with her chance to be a YL. And yet—

Kay leaned forward and flicked on the switch. She waited for the meter to register properly. The needle fluctuated wildly for a moment, then



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steadied. Kay pulled the microphone toward her and took a deep breath. She was voluntarily about to give up the one thing she most wanted: the right to be a ham. But other things were more important.

"This is W<sub>4</sub>HZP," she said, "calling CQ. Calling any amateur station. Calling CQ."

Twice Kay repeated the call, at first shakily, then steadier. She moved the dial on the receiver. Static ripped out at her, and meaningless squalls, and once a snip of conversation. But there was no answer to her CQ.

Kay picked up the mike again. She forced herself to speak clearly and slowly.

"Calling CQ. This is W<sub>4</sub>HZP, calling CQ. Come in someone, please."

This time she added the word "Mayday"—the radiophone distress symbol which corresponds to wireless' SOS—and spelled out Jane's call letters, "Happy Zebra Puppy."

Her nervous fingers again twisted the receiver-tuning control. She listened intently, determined to turn slowly but steadily across the entire face of the dial. For the space of half a dozen hairlines nothing happened. Then the static cleared and a man's voice boomed through with a loudness that startled her. It was a strangely familiar voice, and it was repeating Jane's call. Then—



KAY EVERETT CALLS CQ

"Is that you, Jane?" the voice said. "You don't sound like yourself. What's wrong?"

Kay's body flooded with relief. Tim. It was Tim.

"This is W4HZP," she replied, handling the dials and switches with a new confidence. "But this is Kay Everett."

And, concisely, she told her story.

"How badly is Jane hurt?" were Tim's first words.

"A broken ankle, I think."

"Now tell me where you are on the Trail Ridge Road. Then keep your receiver tuned to this spot and wait for me."

Kay sat quietly while the interminable minutes ticked by. Every few seconds she peered into the woods for a sign of Flip and Diana. But all she could see was the tower of smoke billowing into the sky. Once the wind caught it and whipped it apart, and she could see flames at the base and heart of it. Then Tim was speaking to her again.

"I phoned Park Service headquarters. Fire fighters are on their way up the Trail Ridge, and there'll be a doctor with them. The police have been notified about the thief. They'll be along any minute. Meanwhile the road is being blocked at both ends; he can't get away. I'm leaving here now, too, Kay. I'll be there as fast as I can. Just tell Jane '88' for me."

Tim signed off, and there was silence.



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Kay looked at her watch as she shut off the rig. It was not ten minutes since she sent out her CQ. Now her first contact—and her last—was over.

Despite her weariness she forced herself to her feet. Jane was still in danger, the fire was spreading, the criminal was loose, Flip and Diana were somewhere in the forest—there was so much to be done.

Kay took a few steps before she heard the crackling of underbrush. Then from the smoky cloud—almost like the sheep that had engulfed them so long ago—came Flip and Diana, half-carrying and half-dragging Jane between them. Kay fought back an impulse to vent her relief in a hysterical laugh. Instead she ran to help.

They stretched Jane full length on the seat of the car. Diana brought a Thermos of tea from the back seat and forced some of the liquid down Jane's throat. Flip scavenged a heavy blanket from the trailer and wrapped it around the older girl.

"We were just in time," Diana said. "The wind was shifting."

Kay shivered. "Everything's going to be all right now."

She explained what she had done. Then she stopped short. Everything wasn't all right. The blaze was fanning in their direction; it would only be a matter of minutes before—



The wail of sirens echoed eerily as the mountains tossed their screaming sound back and forth. Flip rushed to the edge of the turnout. Below her the road circled down from the clouds. A series of specks raced around the curves, grew larger, became cars, shot around the last turn, and screeched to a standstill alongside Solus. In a moment the girls were protectively surrounded by the green of the rangers and the blue of police.

It was a blessed relief to lie back and let others work and worry. Kay watched men run into the forest with fire-fighting equipment, and saw others fan out through the forest to track the fugitive. A brisk, efficient doctor gave Jane a pain-easing injection, and settled her more comfortably. Another man slid in behind the wheel of the car and gently started down the highway. As the car gained speed the pall of smoke seemed to race backward and to lift. Then a wall of mountain loomed up and shut it from sight.

At Park headquarters the doctor took charge. He shooed away a crush of people—officials, newspapermen, curious tourists—and went to work. Kay, Flip, and Diana watched anxiously as he examined Jane's ankle. With light but sensitive pressures of his fingers he explored the swelling. Jane moaned a little in pain. The doctor shook his head once or



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twice, grimaced, frowned, straightened up. The girls looked at him wordlessly.

"Now, mind you, I'm not sure—can't be positive without an X-ray—but I think it's just a severe bruise and sprain."

"It isn't broken?"

"I don't think so. The blow wasn't placed quite right for that. But the leg's had rough treatment. It will hurt, and she'll be limping for a month."

Dexterously he treated and bandaged the leg, then turned his attention to the batch of assorted cuts and scratches on the three girls. None was at all serious except the cut in Kay's forehead. By the time the doctor was through the quartet looked like a walking medicine chest.

Outside the closed door there was a sound of scuffling, and then a redheaded young man burst through.

"Where's Jane?" Tim Rhodes shouted. Then, catching sight of her, his voice lowered. "Jane!" He crossed the room in three strides and fell to his knees beside her. He took her hand and held it. The girl smiled down at him.

"I'm all right, Tim, thanks to you."

Tim shook his head. "Kay's the gal who did it all. I just happened to pick up her CQ. Hasn't she told you?"



Kay crimsoned. Now the whole story would come out, the newspapers would write about it, everyone would know. In despair she blurted what she had done.

"And I'll never get my ham license," she said bitterly. "Never!"

"My goodness," said Jane. And then, again, "My goodness."

She looked at Kay unbelievably, then stretched a hand to the girl. "Come here," she said.

Kay walked slowly to her side. Jane put an arm about her shoulders.

"Kay, I owe my life to you. Maybe hundreds of people do; there's no telling what would have happened if the fire had gotten out of control. You're a ham heroine if there ever was one."

"I used your call," Kay said. "I didn't know what else to do. You won't get into trouble, will you? I'm the only one who should be punished."

"Punished? What's all this talk about punishment?" asked Tim.

"But I went on the air without a license."

"And all you did was save some lives, keep a forest from being burned down, and probably help catch a dangerous criminal." Tim laughed. "And you expect to be punished? Young lady, you should get several medals."



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"But the government," said Kay, "the FCC rules—"

"Those gentlemen have hearts as well as law books," said Tim. "I think this time they may understand and make an exception just this once. But don't get in the habit. It's a lot more fun operating *with* a license, you know."

There was a knock on the door as Tim finished. Two burly troopers entered, half-dragging a tattered wreck of a man.

"This him?" asked the trooper.

The girls nodded.

"We've been looking for him for months. He won't bother anyone now for a long, long time. Thanks a lot."

"Did you find a little box he had?" asked Flip.

"You mean this?" One of the troopers produced the tool box.

Flip leaped upon it. "There's a bracelet of mine in there. Silver links with dancing girls," she said.

The trooper looked inside. "By gosh, you're right," he said, holding up Flip's long-lost birthday present. "That sure makes the identification of this guy stick."

"And for goodness' sake," said Flip to the girls, "don't say anything to Mom about *this*—just make



believe I never took it along in the first place. From now on I'm going to be more careful."

The girls smiled at one another. How many times had Flip said that before? Flip, they knew, would never change much. But she was a lot of fun just the way she was.

Kay spoke directly to the haggard thief. "Then you must be the one who ransacked our trailer in Yellowstone?" If the man would answer her, the last shred of suspicion of Ben Judson would be whisked away. The thief was mute until the troopers shook him roughly.

"Answer the girl," they ordered.

Glumly the man nodded. "What about it?"

"Thanks," said Kay. "That's all I wanted to know." She turned to Diana. "Satisfied?"

"You win," Diana said. "I'm sorry, but I had my theories. You wouldn't have wanted me to give up on them until I was convinced?"

"No," said Kay.

"Now I'm convinced. I was wrong. I'm glad Ben Judson never knew what we suspected. And I'm glad one of us was serious about learning ham radio, too." Diana smiled. "I was kind of stubborn, I guess. But I've learned my lesson. A lot of things don't mean much unless you keep an open mind about them."



Kay drew a deep breath. The strain was slowly ebbing out of her, and a delicious sense of relaxation replaced it. But Flip brought her face to face with a new problem.

"Jane can't drive with that ankle," she said. "How are we going to get home?"

"Nothing to it," answered Tim with a broad grin. "I'll drive you home. There's a classmate of mine in Denver who can ferry my car East when he leaves for college. And I can chauffeur you as soon as you're ready to go."

Jane protested, but Tim waved her arguments away. "It'll work out. I can be perfectly comfortable sleeping in the car seat while you're all in the trailer. And during the day I'll be sitting next to you. What could be more comfortable than that?"

Tim swung around toward Kay. "Say, did you ever give Jane my message?" Without waiting for an answer, he turned back and put his arm lightly around Jane's shoulders. "I told her to give you '88' from me."

"I'll bet that's ham slang," said Diana.

"Tell us what it means," Flip begged.

"When a ham says '88,'" Tim answered, looking pointedly at Jane, "he means 'love and kisses.'"

Jane hesitated. Then she smiled. "That's right," she said.



## KAY EVERETT CALLS CQ

Kay felt pleasure run all around inside her. She was happy for Diana, for Tim and Jane, for all of them. For herself, too. In her own way, she was a ham heroine. She'd be a legitimate one, too, soon after she got home; for she determined to take the test for her official license as soon as possible. The shy, hesitant Kay Everett was gone. In her place was a self-assured and confident young lady.

"All set to get started for home?" asked Tim.

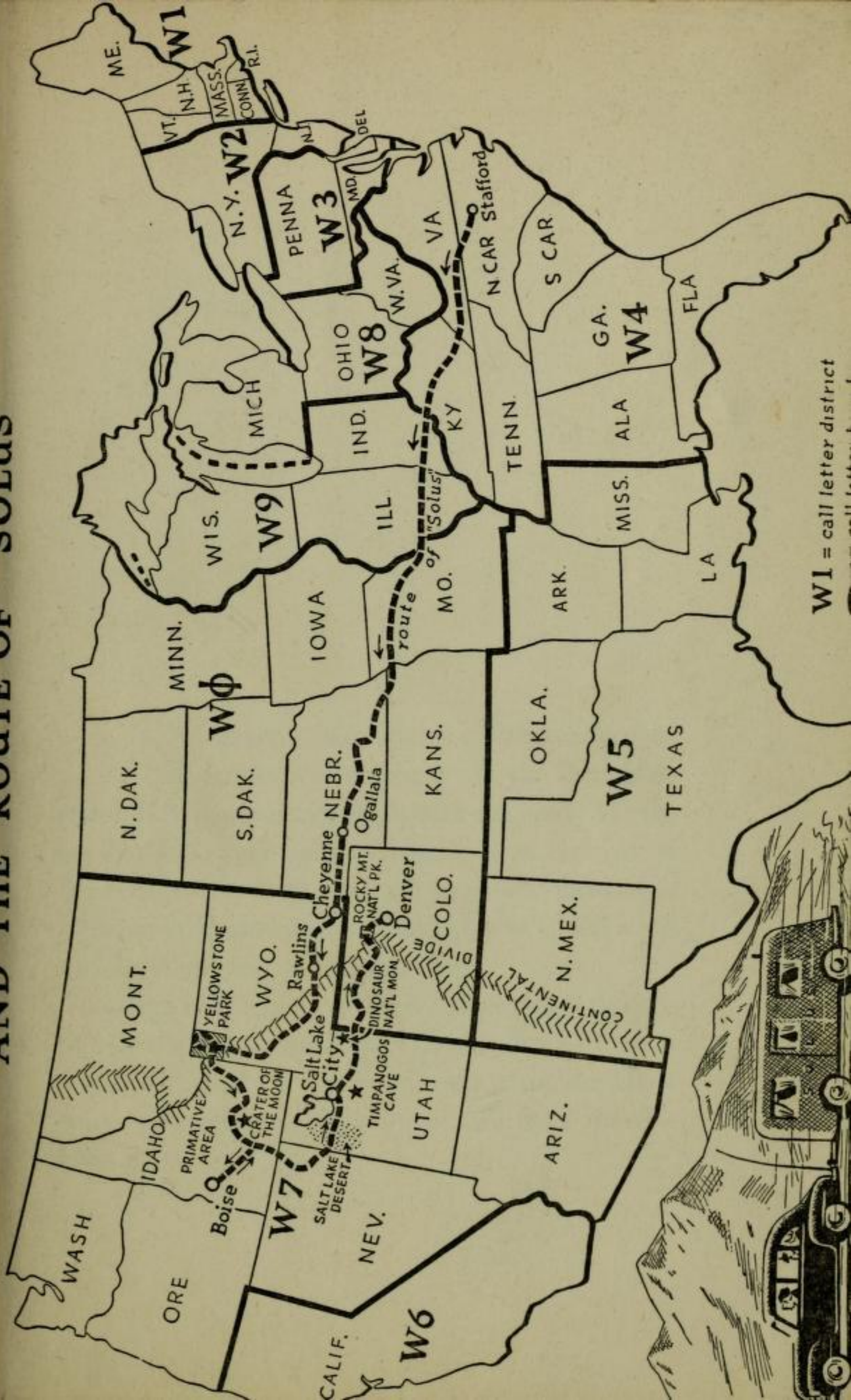
Kay looked at the towering Rockies. "Home?" she said. "Yes. It will be good to get back. There's so much to look forward to."

"Home?" squeaked Flip. "Zumpie! Not till I get a picture of the Rockies."

"Well," said Diana, "here we go again."

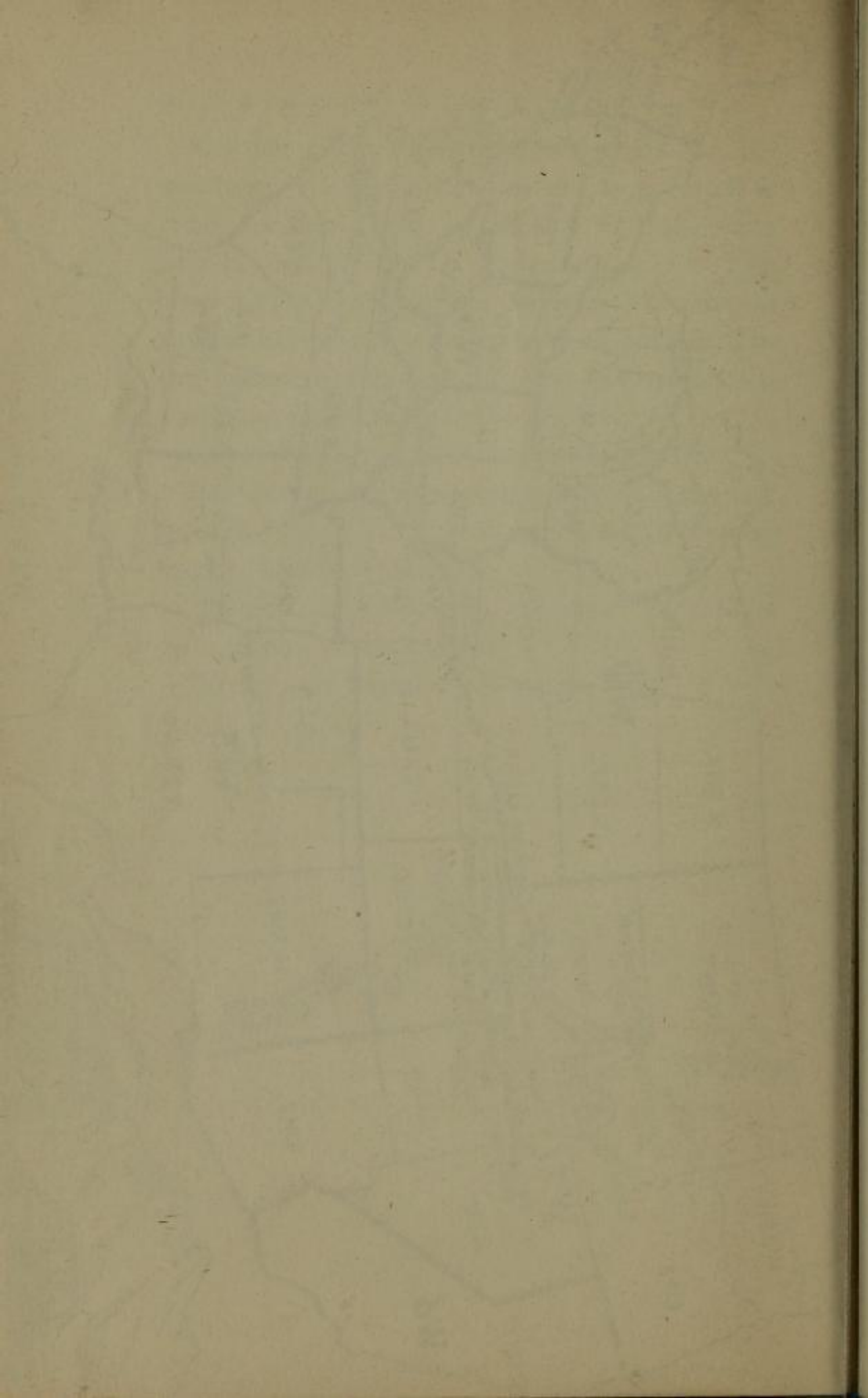


# AND THE ROUTE OF "SOLUS"



W1 = call letter district







## *appendix a*

All amateur radio station calls are composed of letters and numbers. As the map illustrates, U.S. ham calls all begin with the prefix W; the number following the letter depends on the part of the country in which the ham lives. For instance, a girl ham in Massachusetts would be a W<sub>1</sub>, and a girl ham in Wyoming would be a W<sub>7</sub>.

Foreign ham stations are easily identified as to location by the same system. Each country has a different prefix. If you hear a foreign station on the short waves you can identify it by its call from the following list.



# APPENDIX A

## INTERNATIONAL AMATEUR PREFIXES

AC <sub>3</sub>	Sikkim	FB8	Madagascar
AC <sub>4</sub>	Tibet	FD8	French Togoland
AP	Pakistan	FE8	French Cameroons
AR8	Lebanon	FF8	French West Africa
C	China		
CE	Chile	FG8	Guadeloupe
CM-CO	Cuba	FI8	French Indo China
CN8	French Morocco	FK8	New Caledonia
CP	Bolivia	FL8	French Somaliland
CR <sub>4</sub>	Cape Verde Islands	FM8	Martinique
CR <sub>5</sub>	Portuguese Guinea	FN	French India
CR <sub>6</sub>	Angola	FO8	Tahiti
CR <sub>7</sub>	Mozambique	FP8	Miquelon and St. Pierre Island
CR <sub>8</sub>	Goa (Portuguese India)	FQ8	French Equatorial Africa
CR <sub>9</sub>	Macao		
CR <sub>10</sub>	Timor Island (Portuguese)	FR8	Reunion Island
		FT <sub>4</sub>	Tunisia
CT <sub>1</sub>	Portugal	FU8	New Hebrides
CT <sub>2</sub>	Azores Islands	FY8	French Guiana
CT <sub>3</sub>	Madeira Islands	G	England
CX	Uruguay	GC	Channel Islands
DL	Germany	GD	Isle of Man
DU	Philippine Islands	GI	Northern Ireland
EA	Spain	GM	Scotland
EA <sub>6</sub>	Balearic Islands	GW	Wales
EA <sub>8</sub>	Canary Islands	HA	Hungary
EA <sub>9</sub>	Spanish Morocco	HB	Switzerland
EI	Ireland	HC	Ecuador
EK <sub>1</sub>	Tangier Zone	HE <sub>1</sub>	Lichtenstein
EL	Liberia	HH	Haiti
EP, EQ	Iran	HI	Dominican Republic
ET	Ethiopia		
F	France	HK	Colombian Republic
FA	Algeria		



# APPENDIX A

HL <sub>1</sub>	Korea	LU	Argentina
HP	Panama	LX	Luxembourg
HR	Honduras	LZ	Bulgaria
HS	Siam	MB <sub>9</sub>	Austria
HZ	Saudi Arabia	MD <sub>1</sub>	Cirenaica
I	Italy	MD <sub>2</sub>	Tripolitania
I <sub>6</sub>	Eritrea	MD <sub>3</sub>	Eritrea
J	Japan	MD <sub>4</sub>	Somalia
J <sub>9</sub>	Okinawa	MD <sub>5</sub>	Suez Canal Zone
KA	Philippine Islands	MD <sub>6</sub>	Iraq
KB <sub>6</sub>	Baker, Canton, En- derbury, Howland, and Phoenix Is- lands	NY <sub>4</sub>	Guantanamo Bay, Cuba
		OA	Peru
		OE	Austria
KC <sub>4</sub>	Antarctica	OH	Finland
KC <sub>6</sub>	Caroline Islands	OK	Czechoslovakia
KG <sub>6</sub>	Mariana Islands (Guam)	ON	Belgium
		OQ <sub>5</sub>	Belgian Congo
KG <sub>6I</sub>	Iwo Jima Island	OX	Greenland
KG <sub>6S</sub>	Saipan Island	OY	Faeroes Islands
KG <sub>6T</sub>	Tinian Island	OZ	Denmark
KH <sub>6</sub>	Hawaiian Islands	PA, PI	Netherlands
KJ <sub>6</sub>	Johnston Island	PJ	Netherland West Indies
KL <sub>7</sub>	Alaska		Java
KM <sub>6</sub>	Midway Island	PK <sub>1</sub> ,	
KP <sub>4</sub>	Puerto Rico	2, 3	
KP <sub>6</sub>	Palmyra and Jarvis Islands	PK <sub>4</sub>	Sumatra
		PK <sub>5</sub>	Borneo
KR <sub>6</sub>	Okinawa	PK <sub>6</sub>	Celebes and Mo- luca Islands
KS <sub>4</sub>	Swan Island		
KS <sub>6</sub>	U.S. Samoa	PK <sub>7</sub>	Netherland New Guinea
KV <sub>4</sub>	Virgin Islands		
KW <sub>6</sub>	Wake Island	PX	Andorra
KX <sub>6</sub>	Marshall Islands	PY	Brazil
KZ <sub>5</sub>	Canal Zone	PZ	Surinam
LA	Norway	SM	Sweden
LI	Libya	SP	Poland



# APPENDIX A

ST	Sudan	VP <sub>2</sub>	Leeward and
SU	Egypt		Windward Islands
SV	Crete and Greece	VP <sub>3</sub>	British Guiana
SV <sub>5</sub>	Dodecanese Islands	VP <sub>4</sub>	Trinidad and To-
TA	Turkey		bago Islands
TF	Iceland	VP <sub>5</sub>	Jamaica, Cayman,
TG	Guatemala		Turks and Caicos
TI	Costa Rica		Islands
TR	Libya	VP <sub>6</sub>	Barbados
UA <sub>1</sub> ,	European U.S.S.R.	VP <sub>7</sub>	Bahama Islands
3, 4, 6		VP <sub>8</sub>	Falkland Islands
UA <sub>9</sub> , UA <sub>0</sub>		VP <sub>9</sub>	Bermuda Islands
	Asiatic U.S.S.R.	VQ <sub>1</sub>	Zanzibar
UB <sub>5</sub>	Ukraine	VQ <sub>2</sub>	Northern Rhodesia
UC <sub>5</sub>	White Russian	VQ <sub>3</sub>	Tanganyika Terri-
	S.S.R.		tory
UD <sub>6</sub>	Azerbaijan	VQ <sub>4</sub>	Kenya
UF <sub>6</sub>	Georgia	VQ <sub>5</sub>	Uganda
UG <sub>6</sub>	Armenia	VQ <sub>6</sub>	British Somaliland
UH <sub>8</sub>	Turkoman	VQ <sub>8</sub>	Chagos and Mauri-
UI <sub>8</sub>	Uzbek		tius Islands
UJ <sub>8</sub>	Tadzhik	VQ <sub>9</sub>	Seychelles
UL <sub>7</sub>	Kazakh	VR <sub>1</sub>	Gilbert, Ellice and
UM <sub>8</sub>	Kirghiz		Ocean Islands
UN <sub>1</sub>	Karelo-Finnish Re-	VR <sub>2</sub>	Fiji Islands
	public	VR <sub>3</sub>	Fanning Island
UO <sub>5</sub>	Moldavia	VR <sub>4</sub>	Solomon Islands
UP	Lithuania	VR <sub>5</sub>	Tonga (Friendly)
UQ	Latvia		Island
UR	Estonia	VR <sub>6</sub>	Pitcairn Island
VE	Canada	VS <sub>1</sub>	Singapore
VK	Australia	VS <sub>2</sub>	Malayan Union
VK <sub>7</sub>	Tasmania	VS <sub>4</sub>	British North Bor-
VK <sub>9</sub>	Papua		neo
VO	Newfoundland,	VS <sub>5</sub>	Brunei and Sara-
	Labrador		wak
VP <sub>1</sub>	British Honduras	VS <sub>6</sub>	Hong Kong



# APPENDIX A

VS <sub>7</sub>	Ceylon	ZC <sub>1</sub>	Transjordan
VS <sub>9</sub>	Aden and Socotra	ZC <sub>2</sub>	Cocos Islands
	Islands	ZC <sub>3</sub>	Christmas Islands
VU	India	ZC <sub>4</sub>	Cyprus
VU <sub>4</sub>	Laccadive Islands	ZC <sub>6</sub>	Israel
VU <sub>5</sub>	Andaman Islands	ZD <sub>1</sub>	Sierra Leone
VU <sub>7</sub>	Bahrein Islands	ZD <sub>2</sub>	Nigeria
W	United States of	ZD <sub>3</sub>	Gambia
	America	ZD <sub>4</sub>	Gold Coast and
XE	Mexico		Togoland
XZ	Burma	ZD <sub>6</sub>	Nyasaland
YA	Afghanistan	ZD <sub>7</sub>	St. Helena
YI	Iraq	ZD <sub>8</sub>	Ascension Island
YJ	New Hebrides	ZD <sub>9</sub>	Tristan Da Cunha
YK	Syria	ZE	Southern Rhodesia
YN	Nicaragua	ZK <sub>1</sub>	Cook Islands
YR	Rumania	ZK <sub>2</sub>	Niue
YS	Salvador	ZL	New Zealand
YT, YU	Yugoslavia	ZM	Western Samoa
YV	Venezuela	ZP	Paraguay
ZA	Albania	ZS	Union of South
ZB <sub>1</sub>	Malta		Africa
ZB <sub>2</sub>	Gibraltar		



## *appendix b*

### LISTING OF HAM SLANG AND ABBREVIATIONS

These short cuts are used by amateurs all over the world to save time while talking by code to one another on the air. In addition to this list of most popular ones, individual hams are always making up their own. The main feature is brevity: as "nite" for night, or the dropping of vowels, as "nw" for now.

AA	all after	AMP	ampere
AB	all before	ANI	any
ABT	about	BCNU	I'll be seeing you
AGN	again	BK	break (break in)



# APPENDIX B

BTR	better			amateur, of any age)
CRD	card	OP,		operator
CUD	could	OPR		
CUL	see you later	OW		old woman (a married woman operator of any age)
DX	distance			
ES	and	PSE		please
FB	fine business, good	RCVR		receiver
FM	from	SED		said
FR	for	SEZ		says
GA	go ahead	SKED		schedule (an appointment on the air)
GB	good-by			
GDA	good day	TKS,		thanks
GE	good evening	TNX		
GG	going	TT		that
GM	good morning	TU		thank you
GN	good night	U, UR		you, your, you're
GUD	good	VY		very
HAM	radio amateur	WX		weather
HI	exclamation of laughter	XMTR		transmitter
HR	here, hear	YF (XYL)		wife
HRD	heard	YL		young lady, girl, an unmarried woman operator
HV	have			
HW	how			
NIL	nothing			
NR	number, near	33		love from one YL to another
NW	now			
OB	old boy	73		best regards
OM	old man (any male	88		love and kisses



### *appendix c*

One of the requirements for getting your amateur license is the sending and receiving of International Morse Code at the rate of 13 words a minute.

The alphabet, numerals, and punctuation marks are shown below. The first thing to do is to memorize them, starting with the alphabet. An approved—and easy—way of beginning is to learn the alphabet in groupings, as below. Or if you prefer you may simply learn a few letters at a time, as A through E, then F through J, and so on.

Think of the letters and numerals in terms of



sounds instead of their looks as they are printed, using "dit" for a dot and "dah" for a dash. Thus A becomes not dot-dash, but "dit-dah."

After learning the alphabet memorize the numerals. You'll see they have a set system and are easy to learn. Finally, learn the punctuation marks, still thinking in terms of the sounds the code makes.

Only after you have learned the meanings thoroughly should you think about speed. This you will get by practice. If you can, get someone to send code to you, and you send it back; you can use a simple buzzer and key, hooked up with dry-cell batteries. If there is no one to help you, you can practice sending alone on a buzzer and key; by listening in on the short-wave bands, you can practice receiving code.

A . —	dit-dah	N — .	dah-dit
B — . . .	dah-dit-dit-dit	O — — —	dah-dah-dah
C — . — .	dah-dit-dah-dit	P . — — .	dit-dah-dah-dit
D — . .	dah-dit-dit	Q — — . —	dah-dah-dit-dah
E .	dit	R . — .	dit-dah-dit
F . . — .	dit-dit-dah-dit	S . . .	dit-dit-dit
G — — .	dah-dah-dit	T —	dah
H . . . .	dit-dit-dit-dit	U . . —	dit-dit-dah
I . .	dit-dit	V . . . —	dit-dit-dit-dah
J . — — —	dit-dah-dah-dah	W . — —	dit-dah-dah
K — . —	dah-dit-dah	X — . . —	dah-dit-dit-dah
L . — . .	dit-dah-dit-dit	Y — . — —	dah-dit-dah-dah
M — —	dah-dah	Z — — . .	dah-dah-dit-dit



# APPENDIX C

## LEARNING GROUPS

E .  
I ..  
S ...  
H ....  
  
T —  
M ——  
O ———  
  
A .—  
W .— —  
J .— — —  
  
N —.  
D —..  
B —....

R .—.  
F ..—.  
L .—..  
  
U ..—  
V ....—  
  
G ——. .  
Z ———..  
P .— —. .  
  
K —. —  
X —. . —  
C —. —. .  
Y —. — —  
Q — —. —

1 . — — — —  
2 .. — — — —  
3 ... — — —  
4 .... — —  
5 .....  
6 — .....  
7 — — ....  
8 — — — ..  
9 — — — — .  
0 — — — — —

dit-dah-dah-dah-dah  
dit-dit-dah-dah-dah  
dit-dit-dit-dah-dah  
dit-dit-dit-dit-dah  
dit-dit-dit-dit-dit  
dah-dit-dit-dit-dit  
dah-dah-dit-dit-dit  
dah-dah-dah-dit-dit  
dah-dah-dah-dah-dit  
dah-dah-dah-dah-dah

period  
comma  
question mark  
error  
double dash  
wait  
end of message  
come in  
end of work

. — . — . —  
— — . — — —  
.. — — ..  
.....  
— . . —  
. — . . .  
. — . — .  
— . —  
... — . —



## *appendix d*

### THE "Q" CODE

To save time in communicating with one another, radio amateurs use what are known as "Q" signals. These three-letter abbreviations—all of which begin with the letter Q—stand for a variety of often-used phrases. Some of these "Q" signals are complicated and are used mainly by advanced hams. But they are good to know, and help any amateur be a better ham.

A "Q" signal can be either a question or an answer, depending upon whether followed by a question mark or a period.



# APPENDIX D

ABBREVIATION	QUESTION	ANSWER
QRG	Will you tell me my exact frequency (wave length)?	Your exact frequency (wave length) is —
QRI	Is my note (sound of signal) good?	Your note varies.
QRJ	Are you receiving me badly? Are my signals weak?	I cannot receive you. Your signals are too weak.
QRK	What is the readability of my signals?	The readability of your signals is —
QRL	Are you busy?	I am busy.
QRM	Are you being interfered with?	I am being interfered with.
QRN	Are you being troubled by atmospherics?	I am being troubled by atmospherics.
QRO	Shall I increase power?	Increase power.
QRP	Shall I decrease power?	Decrease power.
QRQ	Shall I send faster?	Send faster.
QRS	Shall I send more slowly?	Send more slowly.
QRT	Shall I stop sending?	Stop sending.
QRU	Have you any message for me?	I have nothing for you.
QRV	Are you ready?	I am ready.
QRX	Shall I wait? When will you call me again?	Wait until —, I will call you at — o'clock.
QRZ	By whom am I being called?	You are being called by —
QSA	What is the strength of my signals?	The strength of your signal is —



# APPENDIX D

QSB	Does the strength of my signals vary?	The strength of your signals varies.
QSK	Shall I continue sending my messages?	Continue sending your messages.
QSL	Can you give me acknowledgment of receipt? (used to ask —will you send me a “QSL” card to confirm this contact?)	I give you acknowledgment of receipt. (Or I will send you an acknowledgment card, “QSL” card, to confirm this contact.)
QSO	Can you make a radio contact with —? (often used to refer to the actual radio contact between hams)	I can make a radio contact with —
QSZ	Shall I send each word or group of words twice?	Send each word or group twice.
QTH	What is your location? (used mainly for address, as the QTH is —)	My location is—



## *appendix e*

### SOME BOOKS FOR THE BEGINNER

*Calling CQ* by Clinton B. DeSoto (Doubleday, Doran), a book of adventures of short-wave radio operators.

Books published by the American Radio Relay League, West Hartford, Conn.:

*The Radio Amateur's Handbook*, a reference volume of technical information of use to the amateur, including facts about operating ham stations.

*How to Become a Radio Amateur*, a pamphlet with the necessary information on becoming a ham.



*The Radio Amateur's License Manual*, a pamphlet which lists all questions and answers that might be asked on a ham examination.

*Learning the Radiotelegraph Code*, a pamphlet which lists the International Morse Code and suggests ways of learning it.

*The Radio Amateur Call Book Magazine* (Radio Amateur Call Book, Inc., 608 South Dearborn Street, Chicago 5, Illinois), a listing of hams in this country and all over the world by name, address, and call letters.

#### Current Magazines:

QST, published by the American Radio Relay League, West Hartford, Conn.

CQ, published by Radio Magazines Inc., 342 Madison Avenue, New York 17, N.Y.



9113



